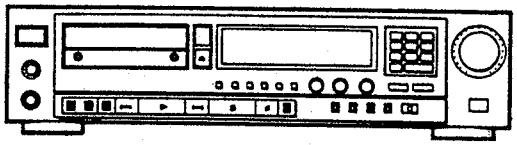
S/M Code No.91 – 092 DATE OF ISSUE 10/1991 – I

AIWA®

XD-S1100

SERVICE MANUAL



DIGITAL AUDIO TAPE DECK

• BASIC DAT MECHANISM : D – 1MK2 • TYPE. K,Z

SPECIFICATIONS

Tape	Digital audio tape
Head	Rotary head
Recording time	120 minutes (DT-120)
Tape speed	8.15 mm/s (12.225 mm/s)
Drum rotation	2,000 rpm
Error correction system	Double Reed Solomon
Tape Track pitch	13.6 µm (20.4 µm)
Sampling frequencies	48 kHz, 44.1 kHz, 32 kHz
Conversion system	8-10 conversion
Transmission rate	2.46 Mbit/sec
D-A conversion	16 bit linear
Number of channels	2 channel stereo
Frequency response	2 Hz – 22,000 Hz (±0.5 dB)
Signal-to-noise ratio	96 dB (A) (playback) 90 dB (A) (recording/playback)
Dynamic range	93 dB (playback) 90 dB (recording/playback)
Total harmonic distortion	0.005% (1 kHz, playback)
Wow and flutter	Under measurable limit (±0.001% peak)
Inputs	LINE IN (ANALOG): phono jack, input impedance 47 k ohms, input sensitivity 200 mVrms DIGITAL 1 (OPTICAL) IN: digital optical link DIGITAL 2 (COAXIAL) IN: phono jack, input impedance 75 ohms, standard input level 0.5 Vp-p
Outputs	LINE OUT (ANALOG): phono jack, output impedance 1 k ohm, rated output level 2 Vrms, load impedance 10 k ohms or more DIGITAL 1 (OPTICAL) OUT: digital optical link DIGITAL 2 (COAXIAL)OUT: phono jack, output impedance 75 ohms, Rated output level 0.5 Vp-p, load impedance 75 ohms or more PHONES: Stereo phone jack, rated output level 10 mW or more, load impedance 32 ohms
General	
Power requirements	AH: 120/220/240 V AC switchable, 50/60 Hz K: 240 V AC, 50 Hz Z: 220 V AC, 50 Hz U: 120 V AC, 60 Hz
Power consumption	17 W
Dimensions (W×H×D)	466 × 116 × 367.5 mm (18⅜ × 4⅝ × 14½ in.)
Weight	Approx. 7.5 kg (16.5 lb)

• Design and specifications are subject to change without notice.

AIWA Co., Ltd. Tokyo Japan

DISASSEMBLY INSTRUCTIONS

1. **"Cassette Component Chassis Assy" Removal** (See Figure-1)
   1) Remove 2 screws (Ⓐ) and then the "Panel, Tray"
   2) Open the "Cassette Component Chassis Assy"
   2-1) To open manually :
   Turn "Gear, Relay A" in the direction of arrow ① with your fingers.
   2-2) To open automatically :
   Press the OPEN/CLOSE button.
   Caution 1 : Do not pull the "Cassette Component Chassis Assy" forcibly.
   2 : Open in the unsledding mode.
   3) Remove 4 screws (Ⓑ) and then the "Cassette Component Chassis Assy" in the direction of arrow ②.
   Caution 3 : Do not damage the "Cabinet Front ASSY" when removing the "Cassette Component Chassis Assy"

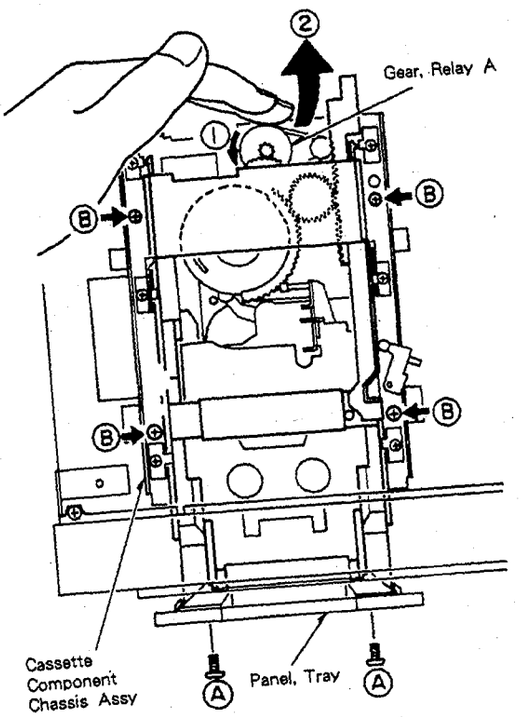


Fig. 1

2. **"Pinch Arm ASSY" and "Holder, ES L (Top Sensor ASSY)" Removal** (See Figure-2)
   1) Remove screw (Ⓐ) and then the "Holder, ES L (Top Sensor ASSY)."
   2) Release one hook of the "T-Spring, Pinch Arm" in the direction of arrow ① as shown in the figure.
   3) Remove PW (Ⓑ) and then the "Pinch Arm ASSY."

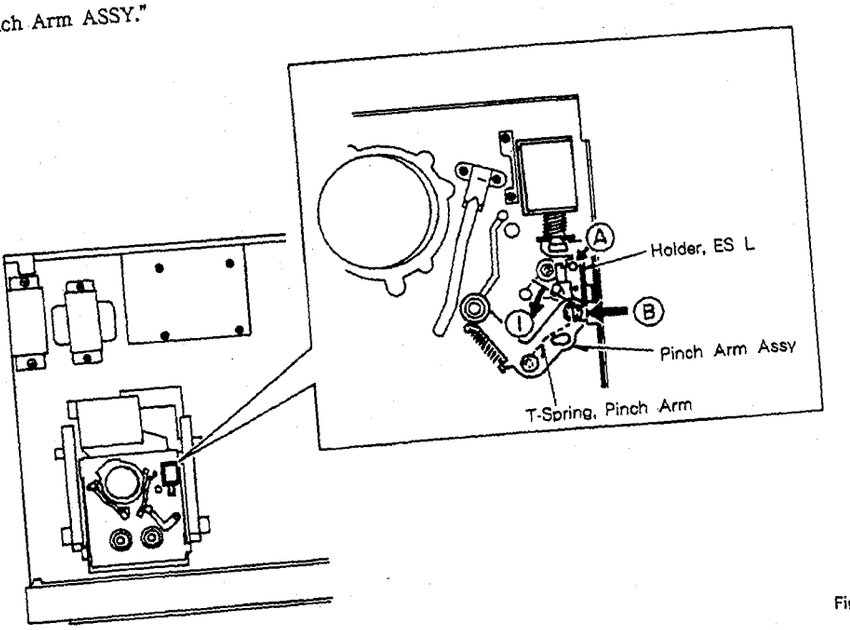


Fig. 2

3. **"Reel Disk Assy" Removal** (See Figure-3)

1) Turn the power switch on and perform the loading operation. Press the "Pin Switch" on the right of "Push Switch B" to move "Shuttles L Assy and R Assy" to the middle positions, then turn the power off and check that "Lever, B" does not ride over the "Reel Disk ASSY (T Reel Disk)."
2) Remove PW (Ⓐ) on the "Plate, Kick Tension-RGLT" and move the "Plate, Kick Tension-RGLT" in the direction of arrow ①.
3) Push the "T Soft Brake ASSY" in the direction of arrow ② and hold it, then remove PW (Ⓑ) and the "Reel Disk ASSY (T Reel Disk)."
4) Remove screw (Ⓒ) and then "Push Switch B."
5) Remove screw (Ⓓ) and then the "Tenreg Band Assy."
6) Remove PW (Ⓔ) and then the "Reel Disk ASSY (S Reel Disk)."

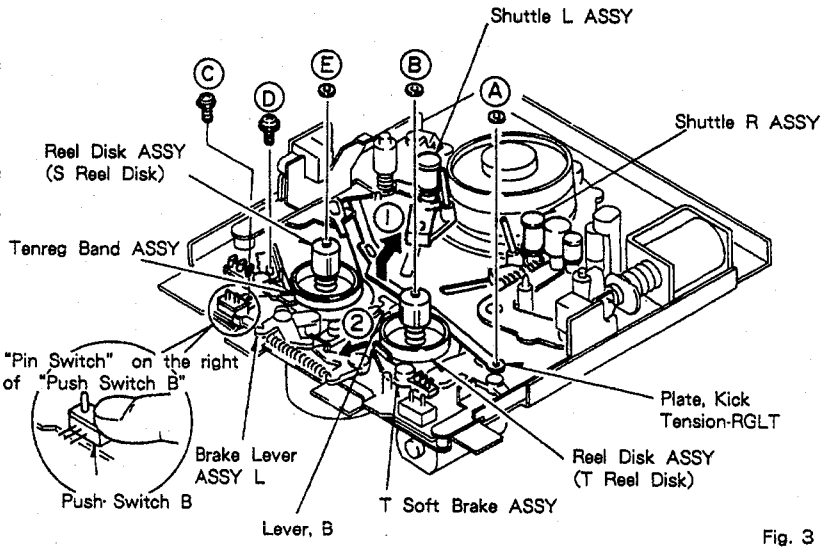


Fig. 3

4. **"Mechanism ASSY" Removal** (See Figure-4)

1) Remove 4 screws (Ⓐ) and then the "Mechanism ASSY" in the direction of arrow ①.

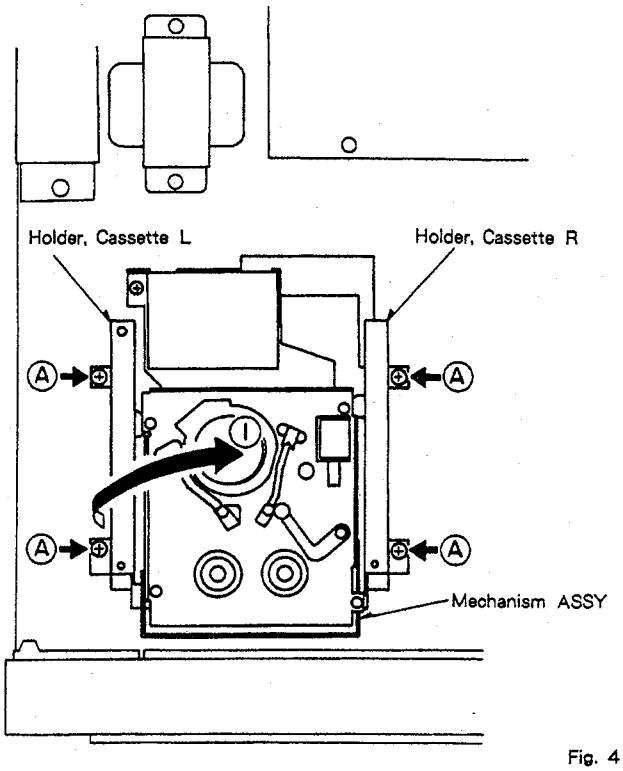


Fig. 4

5. "Reel Motor ASSY" Removal

1) Remove 3 screws (Ⓐ× 2, Ⓑ× 1) and disconnect 4 connectors on the "Main Circuit Board," then remove the "Main Circuit Board" in the direction of arrow ①. (See Figure-5)
2) Remove PW (Ⓒ) and then the "Reel Disk ASSY (S Reel Disk)." (See Figure-6)
3) Remove PW (Ⓓ) on the "Auto Reverse Lever ASSY." (See Figure-6)
4) Remove 2 screws (Ⓔ) and then the "Reel Motor ASSY." (See Figure-6)

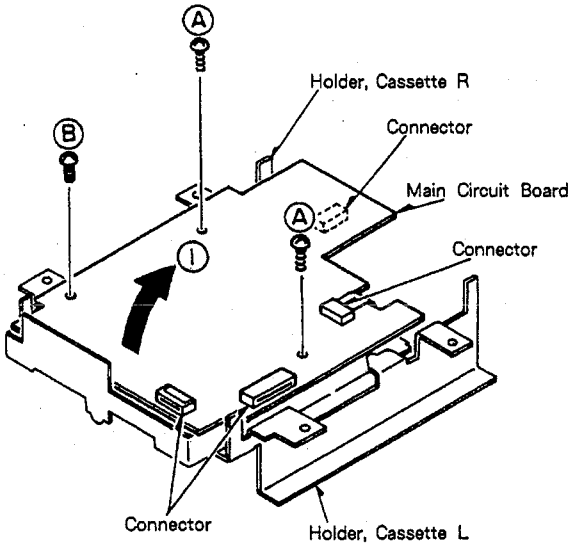


Fig. 5

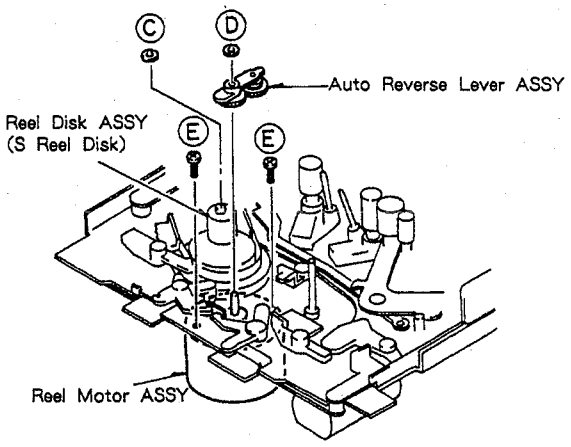


Fig. 6

ELECTRICAL MAIN PARTS LIST

REF. NO.	PART NO.	DESCRIPTION
=== IC ===		
	87-002-248-010	IC, BA15218D
	87-001-440-010	IC, BA15218N
	87-002-214-010	IC, CS5339KP
	80-MQ1-607-010	IC, CXP5058H-577
	87-002-211-010	IC, GP1F32T(OPTICAL 1 OUT)
	87-002-212-010	IC, GP1F32R(OPTICAL 1 IN)
	89-HD1-603-010	IC, HA12062AMP
	89-HD1-602-010	IC, HA12133MP
	89-HD1-633-010	IC, HD49211BFS
	89-HD1-604-010	IC, HD49212
	87-001-800-010	IC, HM65256BFP-15T
	87-002-209-010	IC, LB8620M
	87-020-883-010	IC, M74HCU04P
	87-001-802-010	IC, NJM2902M
	87-027-842-010	IC, NJM2904M
	87-020-903-010	IC, NJM7805FA
	87-002-368-010	IC, NJM7806FA
	87-001-641-010	IC, NJM79M05FA
	87-020-910-010	IC, PST523F
	87-002-213-010	IC, SAA7322
	87-001-790-010	IC, SBX1610-52(REMOTE SENSOR)
	87-002-373-010	IC, SN74HC00N
	87-002-374-010	IC, SN74HC74N
	87-001-799-010	IC, SN74LS624NS
	87-002-210-010	IC, TA8409F
	87-002-223-010	IC, TC4051BF
	87-002-375-010	IC, TC4S584F
	87-001-796-010	IC, TC74HC163F
	87-001-668-010	IC, TC74HC4053AF
	87-001-584-010	IC, TC7S02F
	87-001-881-010	IC, TC7SU04F
	80-AD1-670-010	IC, UPD75112GF-678
=== TRANSISTOR ===		
	89-515-850-010	TRANSISTOR, 2SK1585
	89-211-821-010	TRANSISTOR, 2SB1182Q
	89-213-321-010	TRANSISTOR, 2SB1332R
	89-341-164-010	TRANSISTOR, 2SC4116Y
	89-342-132-010	TRANSISTOR, 2SC4213B
	87-026-500-010	TRANSISTOR, 2SD2144S, UV
	87-026-518-010	TRANSISTOR, 2SJ207
	87-026-219-010	TRANSISTOR, DTA144ES
	87-026-218-010	TRANSISTOR, DTC144ES
	87-026-366-010	TRANSISTOR, RN1204
	87-026-377-010	TRANSISTOR, RN2204
=== DIODE ===		
	87-027-376-010	DIODE, 1B4B41
	87-001-574-010	DIODE, 1SR139-200
	87-020-110-010	DIODE, 1SS177
	87-001-166-010	DIODE, CHIP 1SS301
	87-001-749-010	DIODE, D5SB20
	87-027-676-010	DIODE, ZENER HZ12B3L
	87-027-661-010	DIODE, ZENER HZ30-2L
	87-027-393-010	DIODE, ZENER HZ4C2
=== MAIN CIRCUIT BOARD SECTION ===		
C50	★87-012-286-010	CAP, CHIP SS 0.01-25
C51	★87-012-286-010	CAP, CHIP SS 0.01-25
C52	★87-012-286-010	CAP, CHIP SS 0.01-25
C53	★87-012-286-010	CAP, CHIP SS 0.01-25
C54	★87-012-286-010	CAP, CHIP SS 0.01-25
C55	★87-012-286-010	CAP, CHIP SS 0.01-25
C56	★87-012-286-010	CAP, CHIP SS 0.01-25
C57	★87-012-180-010	CAP, CHIP SS 22P-50 CH
C58	★87-012-286-010	CAP, CHIP SS 0.01-25
C59	★87-010-194-010	CAP, CHIP S 0.047-25
C60	★87-012-360-010	CAP, CHIP S 1-10
C61	★87-012-286-010	CAP, CHIP SS 0.01-25
C62	★87-012-286-010	CAP, CHIP SS 0.01-25
C63	★87-012-286-010	CAP, CHIP SS 0.01-25
C64	★87-010-880-010	CAP, CHIP ELECT 47-6.3
C65	★87-010-196-010	CAP, CHIP S 0.1-25
C66	★87-010-196-010	CAP, CHIP S 0.1-25
C67	★87-010-880-010	CAP, CHIP ELECT 47-6.3
C100	★87-012-182-010	CAP, CHIP SS 27P-50 CH
C101	★87-012-182-010	CAP, CHIP SS 27P-50 CH
C102	★87-010-885-010	CAP, CHIP ELECT 22-10
C103	★87-010-884-010	CAP, CHIP ELECT 22-6.3
C104	★87-010-196-010	CAP, CHIP S 0.1-25
C105	★87-012-286-010	CAP, CHIP SS 0.01-25
C106	★87-012-286-010	CAP, CHIP SS 0.01-25
C200	★87-012-188-010	CAP, CHIP SS 47P-50 CH
C201	★87-012-188-010	CAP, CHIP SS 47P-50 CH
C202	★87-010-779-010	CAP, CHIP ELECT 100-6.3
C203	★87-010-196-010	CAP, CHIP S 0.1-25
C204	★87-010-196-010	CAP, CHIP S 0.1-25
C205	★87-010-779-010	CAP, CHIP ELECT 100-6.3
C206	★87-012-180-010	CAP, CHIP SS 22P-50 CH
C207	★87-010-178-010	CAP, CHIP S 1000P-50
C208	★87-012-172-010	CAP, CHIP SS 10P-50 CH
C209	★87-012-272-010	CAP, CHIP SS 680P-50
C210	★87-012-188-010	CAP, CHIP SS 47P-50 CH
C211	★87-012-272-010	CAP, CHIP SS 680P-50
C212	★87-012-188-010	CAP, CHIP SS 47P-50 CH
C213	★87-012-286-010	CAP, CHIP SS 0.01-25
C214	★87-010-196-010	CAP, CHIP S 0.1-25
C215	★87-010-196-010	CAP, CHIP S 0.1-25
C216	★87-012-286-010	CAP, CHIP SS 0.01-25
C217	★87-012-286-010	CAP, CHIP SS 0.01-25
C218	★87-012-274-010	CAP, CHIP SS 1000P-50
C219	★87-010-505-010	CAP, CHIP TANTALUM 1-16
C220	★87-012-285-010	CAP, CHIP SS 8200P-50
C221	★87-010-196-010	CAP, CHIP S 0.1-25
C222	★87-010-884-010	CAP, CHIP ELECT 22-6.3
C223	★87-012-176-010	CAP, CHIP SS 15P-50 CH
C224	★87-012-174-010	CAP, CHIP SS 12P-50 CH
C225	★87-012-174-010	CAP, CHIP SS 12P-50 CH
C226	★87-012-174-010	CAP, CHIP SS 12P-50 CH
C227	★87-012-174-010	CAP, CHIP SS 12P-50 CH
C228	★87-012-188-010	CAP, CHIP SS 47P-50 CH
C300	★87-010-196-010	CAP, CHIP S 0.1-25
C301	★87-010-884-010	CAP, CHIP ELECT 22-6.3
C302	★87-012-286-010	CAP, CHIP SS 0.01-25
C303	★87-010-196-010	CAP, CHIP S 0.1-25
C304	★87-010-596-010	CAP, CHIP S 0.047-16
C305	★87-012-282-010	CAP, CHIP SS 4700P-50
C306	★87-012-286-010	CAP, CHIP SS 0.01-25
C307	★87-010-781-010	CAP, CHIP ELECT 3.3-6.3 BP
C308	★87-012-360-010	CAP, CHIP S 1-10
C309	★87-010-775-010	CAP, CHIP MYLAR 0.068-25J
C310	★87-010-772-010	CAP, CHIP MYLAR 2200P-25J
C311	★87-010-424-010	
C312	★87-010-774-010	CAP, CHIP MYLAR 0.047-25J
C313	★87-010-772-010	CAP, CHIP MYLAR 2200P-25J
C314	★87-012-274-010	CAP, CHIP SS 1000P-50
C315	★87-010-424-010	CAP, CHIP TANTALUM 4.7-4

REF. NO.	PART NO.	DESCRIPTION
C316	★87-010-505-010	CAP, CHIP TANTALUM 1-16
C317	★87-012-188-010	CAP, CHIP SS 47P-50 CH
C318	★87-012-286-010	CAP, CHIP SS 0.01-25
C319	★87-010-196-010	CAP, CHIP S 0.1-25
C320	★87-012-188-010	CAP, CHIP SS 47P-50 CH
C321	★87-012-360-010	CAP, CHIP S 1-10
C322	★87-012-286-010	CAP, CHIP SS 0.01-25
C323	★87-012-281-010	CAP, CHIP SS 3900P-50
C324	★87-012-285-010	CAP, CHIP SS 8200P-50
C325	★87-012-281-010	CAP, CHIP SS 3900P-50
C326	★87-012-274-010	CAP, CHIP SS 1000P-50
C327	★87-010-424-010	CAP, CHIP TANTALUM 4.7-4
C328	★87-012-278-010	CAP, CHIP SS 2200P-50
C329	★87-012-196-010	CAP, CHIP SS 120P-50 CH
C330	★87-012-360-010	CAP, CHIP S 1-10
C331	★87-010-196-010	CAP, CHIP S 0.1-25
C332	★87-012-286-010	CAP, CHIP SS 0.01-25
C333	★87-012-360-010	CAP, CHIP S 1-10
C334	★87-010-776-010	CAP, CHIP MYLAR 0.15-25J
C335	★87-010-196-010	CAP, CHIP S 0.1-25
C336	★87-010-885-010	CAP, CHIP ELECT 22-10
C337	★87-012-274-010	CAP, CHIP SS 1000P-50
C338	★87-012-360-010	CAP, CHIP S 1-10
C339	★87-010-196-010	CAP, CHIP S 0.1-25
C340	★87-012-195-010	CAP, CHIP SS 100P-50 CH
C341	★87-012-360-010	CAP, CHIP S 1-10
C342	★87-012-360-010	CAP, CHIP S 1-10
C343	★87-010-196-010	CAP, CHIP S 0.1-25
C344	★87-010-885-010	CAP, CHIP ELECT 22-10
C345	★87-010-885-010	CAP, CHIP ELECT 22-10
C346	★87-010-196-010	CAP, CHIP S 0.1-25
C347	★87-010-884-010	CAP, CHIP ELECT 22-6.3
C348	★87-010-196-010	CAP, CHIP S 0.1-25
C349	★87-012-360-010	CAP, CHIP S 1-10
C350	★87-010-789-010	CAP, CHIP MYLAR 0.022J
C351	★87-010-196-010	CAP, CHIP S 0.1-25
C352	★87-012-286-010	CAP, CHIP SS 0.01-25
EM1	★87-006-164-080	FERRITE BEAD, 2125CB50(Z ONLY)
EM2	★87-006-164-080	FERRITE BEAD, 2125CB50(Z ONLY)
EM3	★87-006-164-080	FERRITE BEAD, 2125CB50(Z ONLY)
EM4	★87-006-164-080	FERRITE BEAD, 2125CB50(Z ONLY)
EM5	★87-006-164-080	FERRITE BEAD, 2125CB50(Z ONLY)
EM6	★87-006-164-080	FERRITE BEAD, 2125CB50(Z ONLY)
EM7	★87-006-164-080	FERRITE BEAD, 2125CB50(Z ONLY)
EM8	★87-006-164-080	FERRITE BEAD, 2125CB50(Z ONLY)
EM9	★87-006-164-080	FERRITE BEAD, 2125CB50(Z ONLY)
EM10	★87-006-164-080	FERRITE BEAD, 2125CB50(Z ONLY)
EM11	★87-006-164-080	FERRITE BEAD, 2125CB50(Z ONLY)
EM12	★87-006-164-080	FERRITE BEAD, 2125CB50(Z ONLY)
EM13	★87-006-164-080	FERRITE BEAD, 2125CB50(Z ONLY)
EM14	★87-006-164-080	FERRITE BEAD, 2125CB50(Z ONLY)
L1	★89-HD1-608-010	FILTER, A365LNG-1391
L2	★89-HD1-609-010	FILTER, H366BNJ-1232YPD
L3	★87-005-286-010	COIL, CHIP 1UH
L4	★87-005-310-010	COIL, CHIP 100UH
L5	★89-HD1-607-010	COIL, 303AN-1531AQVC0
L6	★87-005-298-010	COIL, CHIP 10UH
L9	★87-005-310-010	COIL, CHIP 100UH
L10	★87-003-241-010	COIL, CHIP S 4.7UH
L11	★87-003-241-010	COIL, CHIP S 4.7UH
R132	★87-022-204-010	RES, CHIP 22-1W
R133	★87-022-204-010	RES, CHIP 22-1W
SFR6	★87-024-332-010	SFR, 10K
SFR7	★87-024-332-010	SFR, 10K

REF. NO.	PART NO.	DESCRIPTION
SFR8	★87-024-334-010	SFR, 3.3K
SFR9	★87-024-335-010	SFR, 100K
SFR10	★87-024-365-010	SFR, 330
X1	★87-030-191-010	VIB, CER 4.19MGCM
X2	★87-030-146-010	XTAL RESONATOR 22.5792MHZ
X3	★87-030-147-010	XTAL RESONATOR 24.576MHZ
X4	★87-030-190-010	XTAL RESONATOR 37.632MHZ
=== RF CIRCUIT BOARD SECTION ===		
C1	★87-012-193-010	CAP, CHIP SS 82P-50 CH
C2	★87-012-193-010	CAP, CHIP SS 82P-50 CH
C3	★87-012-282-010	CAP, CHIP SS 4700P-50
C4	★87-012-282-010	CAP, CHIP SS 4700P-50
C5	★87-012-280-010	CAP, CHIP SS 3300P-50
C6	★87-012-280-010	CAP, CHIP SS 3300P-50
C7	★87-012-280-010	CAP, CHIP SS 3300P-50
C8	★87-012-280-010	CAP, CHIP SS 3300P-50
C9	★87-012-286-010	CAP, CHIP SS 0.01-25
C10	★87-012-286-010	CAP, CHIP SS 0.01-25
C11	★87-010-787-010	CAP, CHIP SS 0.022-25
C12	★87-010-787-010	CAP, CHIP SS 0.022-25
C13	★87-010-196-010	CAP, CHIP S 0.1-25
C14	★87-010-196-010	CAP, CHIP S 0.1-25
C15	★87-012-286-010	CAP, CHIP SS 0.01-25
C16	★87-012-195-010	CAP, CHIP SS 100P-50 CH
C17	★87-012-286-010	CAP, CHIP SS 0.01-25
C18	★87-012-286-010	CAP, CHIP SS 0.01-25
C19	★87-012-199-010	CAP, CHIP SS 220P-50 CH
C20	★87-012-188-010	CAP, CHIP SS 47P-50 CH
C21	★87-012-275-010	CAP, CHIP SS 1200P-50
C22	★87-012-286-010	CAP, CHIP SS 0.01-25
C23	★87-012-286-010	CAP, CHIP SS 0.01-25
C24	★87-012-286-010	CAP, CHIP SS 0.01-25
C25	★87-012-286-010	CAP, CHIP SS 0.01-25
C26	★87-012-286-010	CAP, CHIP SS 0.01-25
C27	★87-012-286-010	CAP, CHIP SS 0.01-25
C28	★87-010-771-010	CAP, CHIP TANTALUM 47-6.3
C29	★87-010-196-010	CAP, CHIP S 0.1-25
C30	★87-010-515-010	CAP, CHIP TANTALUM 22-6.3
C31	★87-010-196-010	CAP, CHIP S 0.1-25
C32	★87-010-771-010	CAP, CHIP TANTALUM 47-6.3
C33	★87-010-196-010	CAP, CHIP S 0.1-25
C34	★87-010-196-010	CAP, CHIP S 0.1-25
C35	★87-010-522-010	CAP, CHIP TANTALUM 2.2-10
C36	★87-010-522-010	CAP, CHIP TANTALUM 2.2-10
C37	★87-010-196-010	CAP, CHIP S 0.1-25
L7	★87-005-310-010	COIL, CHIP 100UH
L8	★87-005-310-010	COIL, CHIP 100UH
SFR1	★87-024-334-010	SFR, 3.3K
SFR2	★87-024-334-010	SFR, 3.3K
SFR3	★87-024-332-010	SFR, 10K
SFR4	★87-024-332-010	SFR, 10K
SFR5	★87-024-333-010	SFR, 1K
=== AD/DA CONV. CIRCUIT BOARD SECTION ===		
C172	★87-010-265-010	CAP, ELECT 33-16 SME
C173	★87-018-134-010	CAP, CERA-SOL SS 0.01-16
C174	★87-010-265-010	CAP, ELECT 33-16 SME
C175	★87-018-134-010	CAP, CERA-SOL SS 0.01-16
C176	★87-018-119-010	CAP, CERA-SOL SS 100P-50
C177	★87-018-119-010	CAP, CERA-SOL SS 100P-50
C301	★87-010-265-010	CAP, ELECT 33-16 SME
C303	★87-010-265-010	CAP, ELECT 33-16 SME
C304	★87-018-134-010	CAP, CERA-SOL SS 0.01-16

REF. NO.	PART NO.	DESCRIPTION
C305	★87-010-265-010	CAP, ELECT 33-16 SME
C306	★87-018-134-010	CAP, CERA-SOL SS 0.01-16
C307	★87-010-265-010	CAP, ELECT 33-16 SME
C308	★87-018-134-010	CAP, CERA-SOL SS 0.01-16
C310	★87-010-265-010	CAP, ELECT 33-16 SME
C311	★87-018-209-010	CAP, CERA-SOL SS 0.1-50
C312	★87-018-134-010	CAP, CERA-SOL SS 0.01-16
C313	★87-018-134-010	CAP, CERA-SOL SS 0.01-16
C314	★87-010-265-010	CAP, ELECT 33-16 SME
C315	★87-018-209-010	CAP, CERA-SOL SS 0.1-50
C316	★87-018-134-010	CAP, CERA-SOL SS 0.01-16
C317	★87-018-134-010	CAP, CERA-SOL SS 0.01-16
C319	★87-015-457-010	CAP, ELECT 47-16 BP
C320	★87-014-045-010	CAP, PP 330P-100
C321	★87-014-045-010	CAP, PP 330P-100
C322	★87-010-265-010	CAP, ELECT 33-16 SME
C323	★87-010-265-010	CAP, ELECT 33-16 SME
C328	★87-018-117-010	CAP, CERA-SOL SS 68P-50 SL
C329	★87-018-117-010	CAP, CERA-SOL SS 68P-50 SL
C330	★87-015-457-010	CAP, ELECT 47-16 BP
C331	★87-015-457-010	CAP, ELECT 47-16 BP
C332	★87-018-150-010	CAP, CERA-SOL SS 18P-50 CH
C333	★87-018-134-010	CAP, CERA-SOL SS 0.01-16
C334	★87-018-115-010	CAP, CERA-SOL SS 47P-50 SL
C335	★87-010-265-010	CAP, ELECT 33-16 SME
C336	★87-010-265-010	CAP, ELECT 33-16 SME
C337	★87-010-265-010	CAP, ELECT 33-16 SME
C340	★87-015-457-010	CAP, ELECT 47-16 BP
C402	★87-010-265-010	CAP, ELECT 33-16 SME
C403	★87-010-265-010	CAP, ELECT 33-16 SME
C405	★87-018-209-010	CAP, CERA-SOL SS 0.1-50
C406	★87-010-265-010	CAP, ELECT 33-16 SME
C408	★87-018-209-010	CAP, CERA-SOL SS 0.1-50
C409	★87-018-209-010	CAP, CERA-SOL SS 0.1-50
C410	★87-010-265-010	CAP, ELECT 33-16 SME
C411	★87-010-265-010	CAP, ELECT 33-16 SME
C412	★87-018-209-010	CAP, CERA-SOL SS 0.1-50
C413	★87-010-940-010	CAP, PP 120P-100
C414	★87-014-053-010	CAP, PP 680P-100
C415	★87-018-134-010	CAP, CERA-SOL SS 0.01-16
C416	★87-010-265-010	CAP, ELECT 33-16 SME
C417	★87-018-209-010	CAP, CERA-SOL SS 0.1-50
C418	★87-018-115-010	CAP, CERA-SOL SS 47P-50 SL
C419	★87-014-061-010	CAP, PP 1500P-100
C420	★87-010-265-010	CAP, ELECT 33-16 SME
C421	★87-018-209-010	CAP, CERA-SOL SS 0.1-50
C423	★87-010-940-010	CAP, ELECT 10000-16 SMG
C424	★87-014-053-010	CAP, PP 680P-100
C425	★87-010-265-010	CAP, ELECT 33-16 SME
C426	★87-018-134-010	CAP, CERA-SOL SS 0.01-16
C427	★87-014-051-010	CAP, PP 560P-100
C428	★87-014-061-010	CAP, PP 1500P-100
C429	★87-018-115-010	CAP, CERA-SOL SS 47P-50 SL
C430	★87-010-265-010	CAP, ELECT 33-16 SME
C431	★87-010-265-010	CAP, ELECT 33-16 SME
C432	★87-015-457-010	CAP, ELECT 47-16 BP
C433	★87-015-457-010	CAP, ELECT 47-16 BP
C434	★87-015-457-010	CAP, ELECT 47-16 BP
C435	★87-015-457-010	CAP, ELECT 47-16 BP
C436	★87-018-131-010	CAP, CERA-SOL SS 1000P-50
C437	★87-018-131-010	CAP, CERA-SOL SS 1000P-50
C438	★87-018-134-010	CAP, CERA-SOL SS 0.01-16
C439	★87-018-134-010	CAP, CERA-SOL SS 0.01-16
C440	★87-018-134-010	CAP, CERA-SOL SS 0.01-16
C441	★87-018-134-010	CAP, CERA-SOL SS 0.01-16
C444	★87-018-209-010	CAP, CERA-SOL SS 0.1-50
C445	★87-014-051-010	CAP, PP 560P-100
C449	★87-018-116-080	CAP, CERA-SOL SS 56P-50 SL
C450	★87-018-117-080	CAP, CERA-SOL SS 68P-50 SL
C452	★87-010-101-080	CAP, ELECT 220-16 SME
C453	★87-010-265-080	CAP, ELECT 33-16 SME
C454	★87-010-265-080	CAP, ELECT 33-16 SME
C464	★87-018-134-010	CAP, CERA-SOL SS 0.01-16
C601	★87-018-209-010	CAP, CERA-SOL SS 0.1-50
C602	★87-018-209-010	CAP, CERA-SOL SS 0.1-50
C603	★87-018-209-010	CAP, CERA-SOL SS 0.1-50
C604	★87-018-209-010	CAP, CERA-SOL SS 0.1-50
C607	★87-010-615-010	CAP, ELECT 2.2-50 BP
C608	★87-010-615-010	CAP, ELECT 2.2-50 BP
C624	★87-010-101-080	CAP, ELECT 220-16 SME
EM301	★87-003-219-010	FERRITE BEAD-BLOZRN2
EM401	★87-003-219-010	FERRITE BEAD-BLOZRN2
EM402	★87-003-219-010	FERRITE BEAD-BLOZRN2
EM403	★87-003-219-010	FERRITE BEAD-BLOZRN2
EM404	★87-003-219-010	FERRITE BEAD-BLOZRN2
EM405	★87-003-219-010	FERRITE BEAD-BLOZRN2
J301	★87-049-851-010	JACK PIN 2P(LINE IN)
J401	★87-009-052-010	JACK PIN 2P(LINE OUT)
L301	★87-003-102-010	COIL, 10UH
L302	★87-003-102-010	COIL, 10UH
L401	★87-003-143-010	COIL, 4.7UH
L402	★87-003-102-010	COIL, 10UH
L403	★87-003-102-010	COIL, 10UH
L404	★87-003-102-010	COIL, 10UH
L405	★87-003-102-010	COIL, 10UH
L406	★87-003-102-010	COIL, 10UH
L407	★87-003-102-010	COIL, 10UH
=== POWER/DIGITAL CIRCUIT BOARD SECTION ===		
C101	★87-010-101-010	CAP, ELECT 220-16 SME
C102	★87-018-134-010	CAP, CERA-SOL SS 0.01-16
C103	★87-010-940-010	CAP, ELECT 10000-16 SMG
C104	★87-018-134-010	CAP, CERA-SOL SS 0.01-16
C105	★87-018-134-010	CAP, CERA-SOL SS 0.01-16
C106	★87-010-101-010	CAP, ELECT 220-16 SME
C107	★87-010-101-010	CAP, ELECT 220-16 SME
C108	★87-018-134-010	CAP, CERA-SOL SS 0.01-16
C109	★87-018-134-010	CAP, CERA-SOL SS 0.01-16
C110	★87-010-101-010	CAP, ELECT 220-16 SME
C112	★87-010-101-010	CAP, ELECT 220-16 SME
C113	★87-010-410-010	CAP, ELECT 330-50 SME
C114	★87-018-134-010	CAP, CERA-SOL SS 0.01-16
C115	★87-010-907-010	CAP, ELECT 1000-25 SME
C116	★87-010-907-010	CAP, ELECT 1000-16 SME
C118	★87-018-134-010	CAP, CERA-SOL SS 0.01-16(K ONLY)
C121	★87-018-123-080	CAP, CERA-SOL SS 220P-50B(Z ONLY)
C150	★87-018-134-010	CAP, CERA-SOL SS 0.01-16
C151	★87-010-265-010	CAP, ELECT 33-16 SME
C155	★87-010-265-010	CAP, ELECT 33-16 SME
C160	★87-018-131-010	CAP, CERA-SOL SS 1000P-50
C162	★87-018-134-010	CAP, CERA-SOL SS 0.01-16
C163	★87-010-265-010	CAP, ELECT 33-16 SME
C164	★87-018-134-010	CAP, CERA-SOL SS 0.01-16
C165	★87-018-131-010	CAP, CERA-SOL SS 1000P-50
C166	★87-018-209-010	CAP, CERA-SOL SS 0.1-50
C167	★87-018-134-010	CAP, CERA-SOL SS 0.01-16
C168	★87-018-115-010	CAP, CERA-SOL SS 47P-50 SL

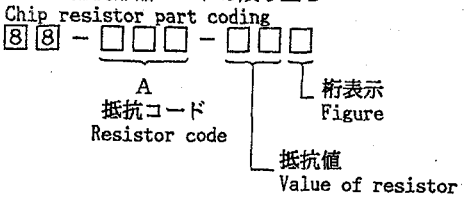
REF. NO.	PART NO.	DESCRIPTION
C178	★87-018-134-010	CAP, CERA-SOL SS 0.01-16
C179	★87-010-265-010	CAP, ELECT 33-16 SME
⚠C180	★87-019-113-010	SPARK KILLER 0.0022E
C181	★87-018-134-010	CAP, CERA-SOL SS 0.01-16
C606	★87-018-134-010	CAP, CERA-SOL SS 0.01-16
EM101	★87-008-372-080	FILTER, EMI BL OIRNI (Z ONLY)
EM102	★87-008-372-080	FILTER, EMI BL OIRNI (Z ONLY)
EM103	★87-008-372-080	FILTER, EMI BL OIRNI (Z ONLY)
EM104	★87-003-219-010	FERRITE BEAD-BLOZRN2
J150	★87-009-049-010	JACK PIN 1P (DIGITAL 2 IN)
J151	★87-009-049-010	JACK PIN 1P (DIGITAL 2 OUT)
J152	87-002-211-010	IC, GP1F32T (OPTICAL 1 OUT)
J153	87-002-212-010	IC, GP1F32R (OPTICAL 1 IN)
L101	★87-006-155-010	COIL, TPS247MN-0386AN
L102	★87-003-102-010	COIL, 10UH
⚠R603	★87-029-131-010	RES, FUSE 1-1W
⚠R604	★87-029-132-010	RES, FUSE 4.7-1/4W
=== FRONT CIRCUIT BOARD SECTION ===		
C201	★87-010-421-010	CAP, ELECT 4.7-50 5L
C202	★87-010-077-010	CAP, ELECT 33-10 5L
C203	★87-018-134-010	CAP, CERA-SOL SS 0.01-16
D201	87-002-367-010	LED, SLP-174B-51 (●)
D202	87-002-365-010	LED, SLP-274B-51 (▶)
D203	87-002-366-010	LED, SLP-474B-51 (❚❚)
FL201	80-AD1-609-010	FL, CM1009C (DISPLAY)
R201	★87-022-213-010	RES, ARRAY 22KX7 RYLS7-223J
R202	★87-022-212-010	RES, ARRAY 22KX11 RYLS11-223J
R203	★87-022-211-010	RES, ARRAY 4.7KX8 RYLS8-472J
SW202	87-036-170-010	TACT SW (SKIP ID MARK)
SW203	87-036-170-010	TACT SW (END ID MARK)
SW204	87-036-170-010	TACT SW (+10)
SW205	87-036-170-010	TACT SW (MEM/CHECK)
SW206	87-036-170-010	TACT SW (REPEAT)
SW207	87-036-170-010	TACT SW (COUNTER MEMORY)
SW208	87-036-170-010	TACT SW (6)
SW209	87-036-170-010	TACT SW (7)
SW210	87-036-170-010	TACT SW (8)
SW211	87-036-170-010	TACT SW (9)
SW212	87-036-170-010	TACT SW (0)
SW213	87-036-170-010	TACT SW (1)
SW214	87-036-170-010	TACT SW (2)
SW215	87-036-170-010	TACT SW (3)
SW216	87-036-170-010	TACT SW (4)
SW217	87-036-170-010	TACT SW (5)
SW219	87-036-170-010	TACT SW (RENUMBER)
SW220	87-036-170-010	TACT SW (REW)
SW221	87-036-170-010	TACT SW (F FWD)
SW222	87-036-170-010	TACT SW (DISPLAY)
SW223	87-036-170-010	TACT SW (COUNTER RESET)
SW224	87-036-170-010	TACT SW (AUTO/MANU)
SW225	87-036-170-010	TACT SW (START ID MARK)
SW226	87-036-170-010	TACT SW (ID ERASE)
SW227	87-036-170-010	TACT SW (STOP/CLEAR)
SW228	87-036-170-010	TACT SW (B SKIP)
SW229	87-036-170-010	TACT SW (END ID SEARCH)
SW230	87-036-170-010	TACT SW (RECORD)
SW231	87-036-170-010	TACT SW (OPEN/CLOSE)
SW232	87-036-170-010	TACT SW (F SKIP)
SW233	87-036-170-010	TACT SW (REC MUTE)
SW234	87-036-170-010	TACT SW (PAUSE)
SW235	87-036-170-010	TACT SW (PLAY)
SW238	87-036-170-010	TACT SW (DELETE)

REF. NO.	PART NO.	DESCRIPTION
X101	★87-008-394-010	CF CST 4.19MGW
=== VR CIRCUIT BOARD SECTION ===		
VR201	★87-024-384-010	VOLUME, 20KAX2 (RECORD LEVEL)
=== PHONE CIRCUIT BOARD SECTION ===		
C251	★87-018-134-010	CAP, CERA-SOL SS 0.01-16
C252	★87-018-134-010	CAP, CERA-SOL SS 0.01-16
C253	★87-018-134-010	CAP, CERA-SOL SS 0.01-16
EM201	★87-008-372-010	FILTER, EMI BL OIRNI
EM202	★87-008-372-010	FILTER, EMI BL OIRNI
EM203	★87-008-372-010	FILTER, EMI BL OIRNI
J201	87-009-018-010	JACK, 6.3 HP-AU (PHONES)
VR202	★87-024-385-010	VOLUME, 5KCX2 (PHONE LEVEL)
=== RECT./REG. CIRCUIT BOARD SECTION ===		
C170	★87-010-265-010	CAP, ELECT 33-16 SME
C171	★87-010-265-010	CAP, ELECT 33-16 SME
C701	★87-010-248-010	CAP, ELECT 220-16 SME
=== LINE FILTER CIRCUIT BOARD SECTION ===		
⚠LF101	★87-005-367-010	FILTER, LINE
=== REMOTE CIRCUIT BOARD SECTION ===		
IC205	87-001-790-010	IC, SBX1610-52 (REMOTE SENSOR)
=== TIMER SW CIRCUIT BOARD SECTION ===		
SW237	87-036-233-010	ROTRY SW (TIMER)
=== SKIP SW CIRCUIT BOARD SECTION ===		
SW236	87-036-232-010	ROTRY SW (SKIP)
=== INPUT SW CIRCUIT BOARD SECTION ===		
SW239	87-036-233-010	ROTRY SW (INPUT)
=== TRAY MOTOR CIRCUIT BOARD SECTION ===		
M3	80-203-603-010	TRAY MOTOR
=== MECHA CIRCUIT BOARD SECTION ===		
PCB-R	80-MQ1-620-010	MECHA FLEXIBLE CIRCUIT BOARD
S1	86-544-609-010	PUSH SW, B (X SOFT, REC ENABLE)
S2	86-544-608-010	PUSH SW, A (CASSETTE IN, 1.5TP)
=== END SENSOR CIRCUIT BOARD SECTION ===		
CP2	80-MQ1-644-010	PHOTO SENSOR, ON2175 (END SENSOR)
=== T SENSOR CIRCUIT BOARD SECTION ===		
CP3	86-544-610-010	PHOTO SENSOR (T SENSOR)
=== S SENSOR CIRCUIT BOARD SECTION ===		
CP4	86-544-610-010	PHOTO SENSOR (S SENSOR)
=== TOP SENSOR CIRCUIT BOARD SECTION ===		
CP1	80-MQ1-644-010	PHOTO SENSOR, ON2175 (TOP SENSOR)
=== MISCELLANEOUS ===		
⚠	★87-034-760-010	AC CORD, K 2M OFC BLK (K ONLY)
⚠	★82-187-797-019	AC CORD, E (Z ONLY)
⚠	★87-085-185-010	BUSHING, AC CORD, E
M1	86-544-454-010	REEL MOTOR ASSY
M2	86-544-602-110	SLED MOTOR ASSY
M4	86-544-617-010	DRUM MOTOR (DOU-02G)

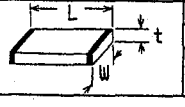
REF. NO.	PART NO.	DESCRIPTION
M5	98-835-206-010	CAPSTAN MOTOR
S3	87-036-089-010	LEAF SW(TRAY SW)
S4	86-544-604-010	MODE SELECTOR(MODE SW)
SOL1	86-544-618-010	SOLENOID(BRAKE)
⚠SW201	87-036-226-010	PUSH SW(POWER)
⚠PT101	80-AD1-605-010	POWER TRANSFORMER, K(K ONLY)
⚠PT101	80-AD1-604-010	POWER TRANSFORMER, E(Z ONLY)

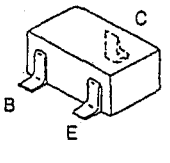
○チップ抵抗部品コード／CHIP RESISTOR PART CODE

チップ抵抗部品コードの成り立ち
Chip resistor part coding

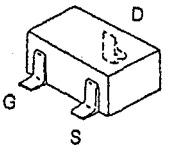


チップ抵抗
Chip resistor

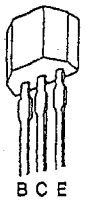
Wattage 容量	Type 種類	Tolerance 許容誤差	Symbol 記号	Dimensions／寸法(mm) Form/外形	L	W	t	Resistor Code : A 抵抗コード : A
1/32W	1608	±5%	CJ		1.6	0.8	0.35	108
1/10W	2125	±5%	CJ		2	1.25	1.45	118
1/8W	3216	±5%	CJ		3.2	1.6	0.5 ～0.7	128



2SB1182
2SC4116
2SC4213

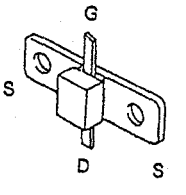


2SJ207



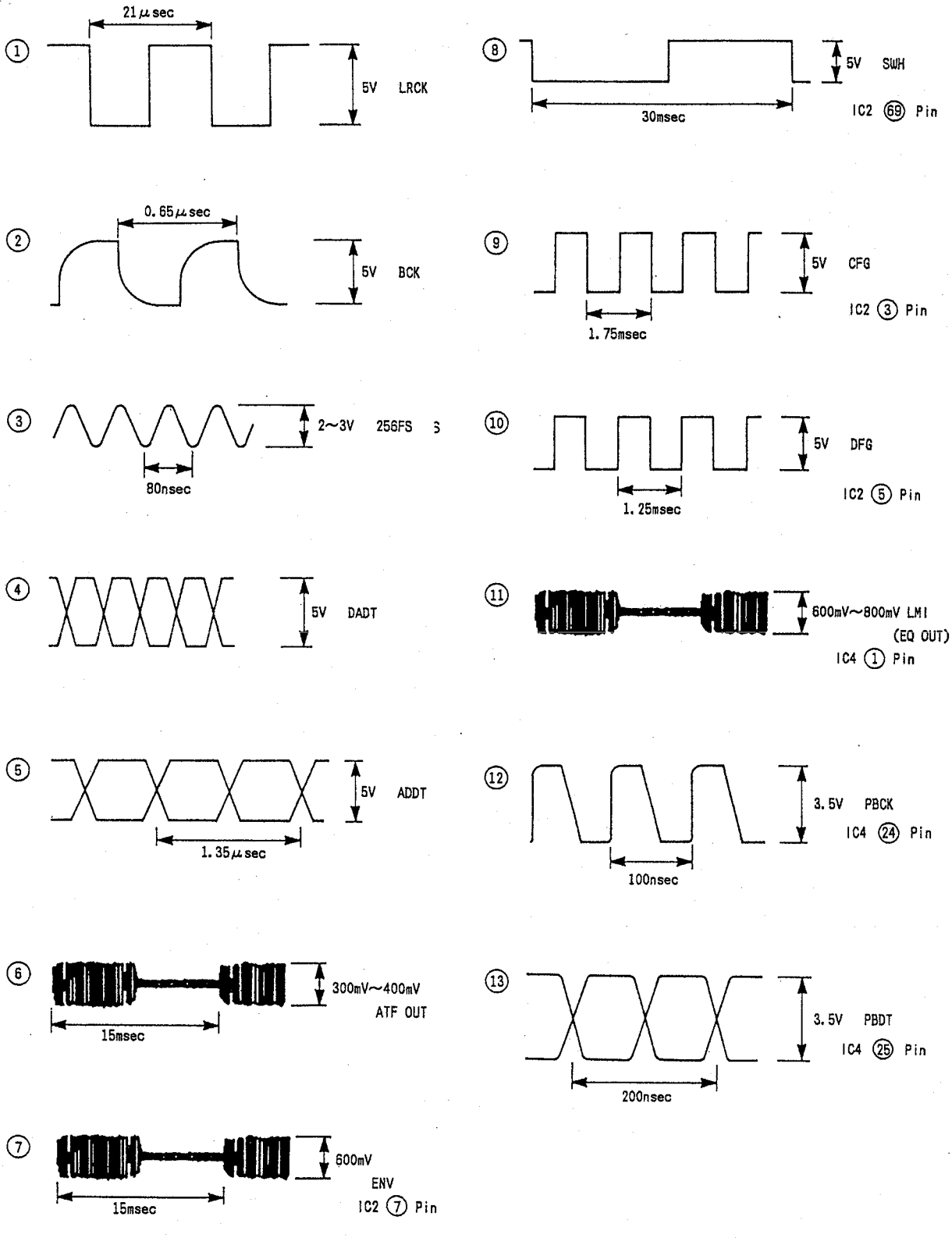
DTA144
DTC144
RN1204
RN2204

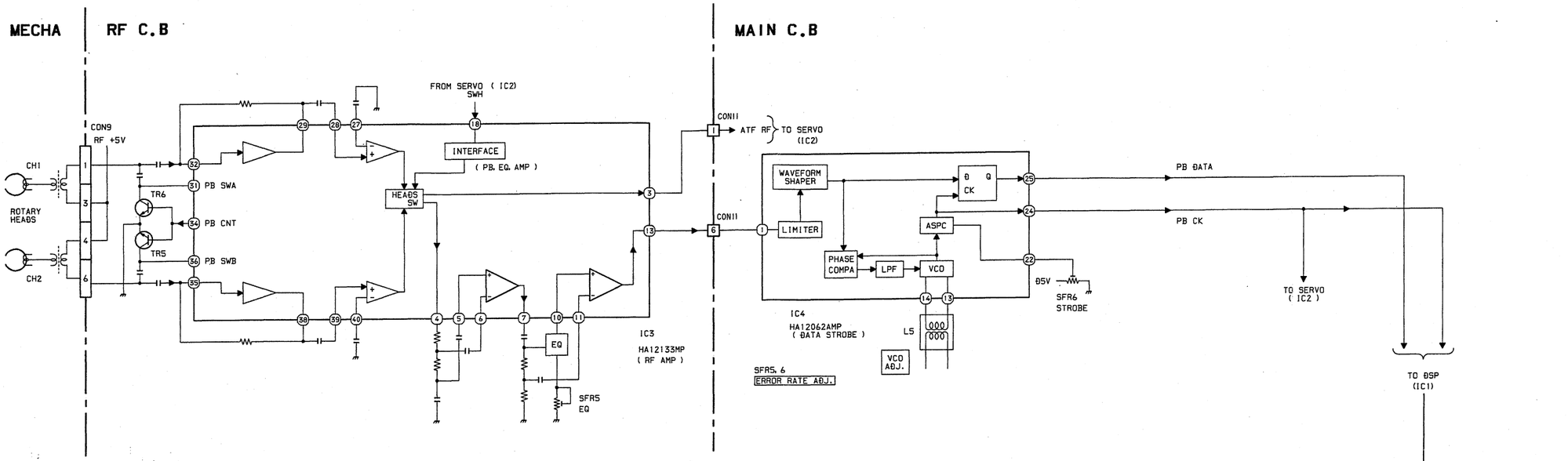
2SB1332
2SD2144

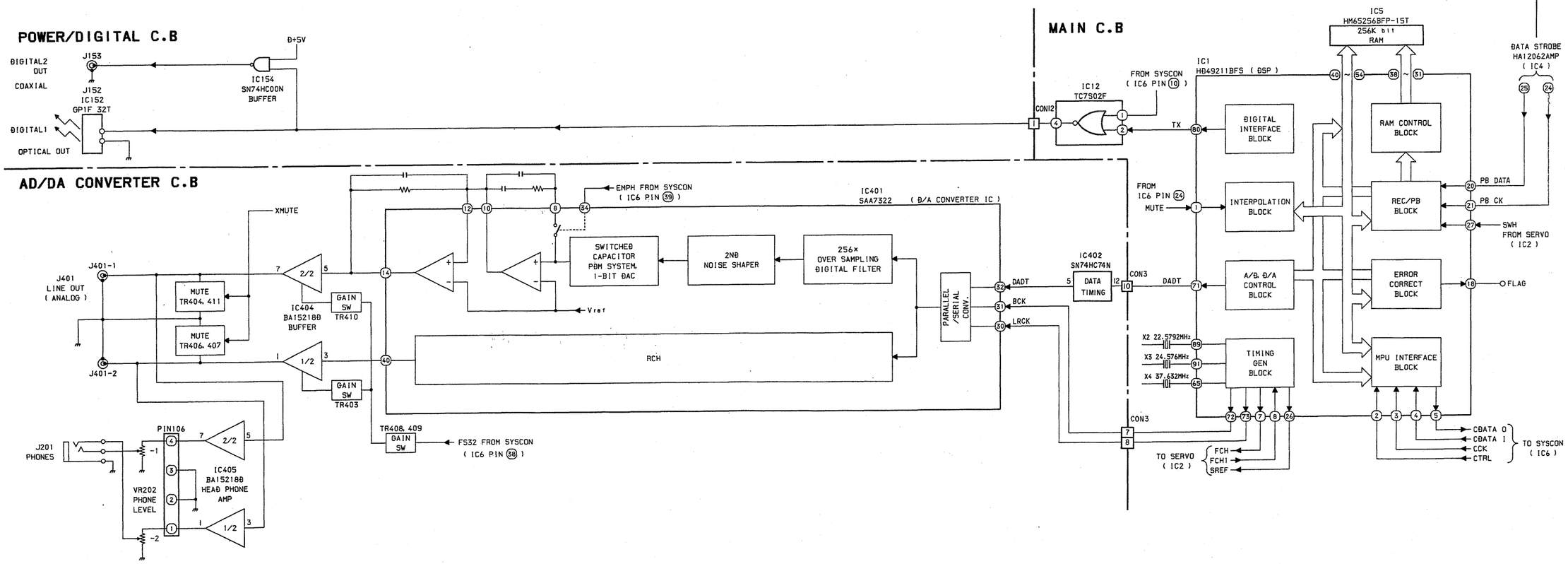


2SK1585

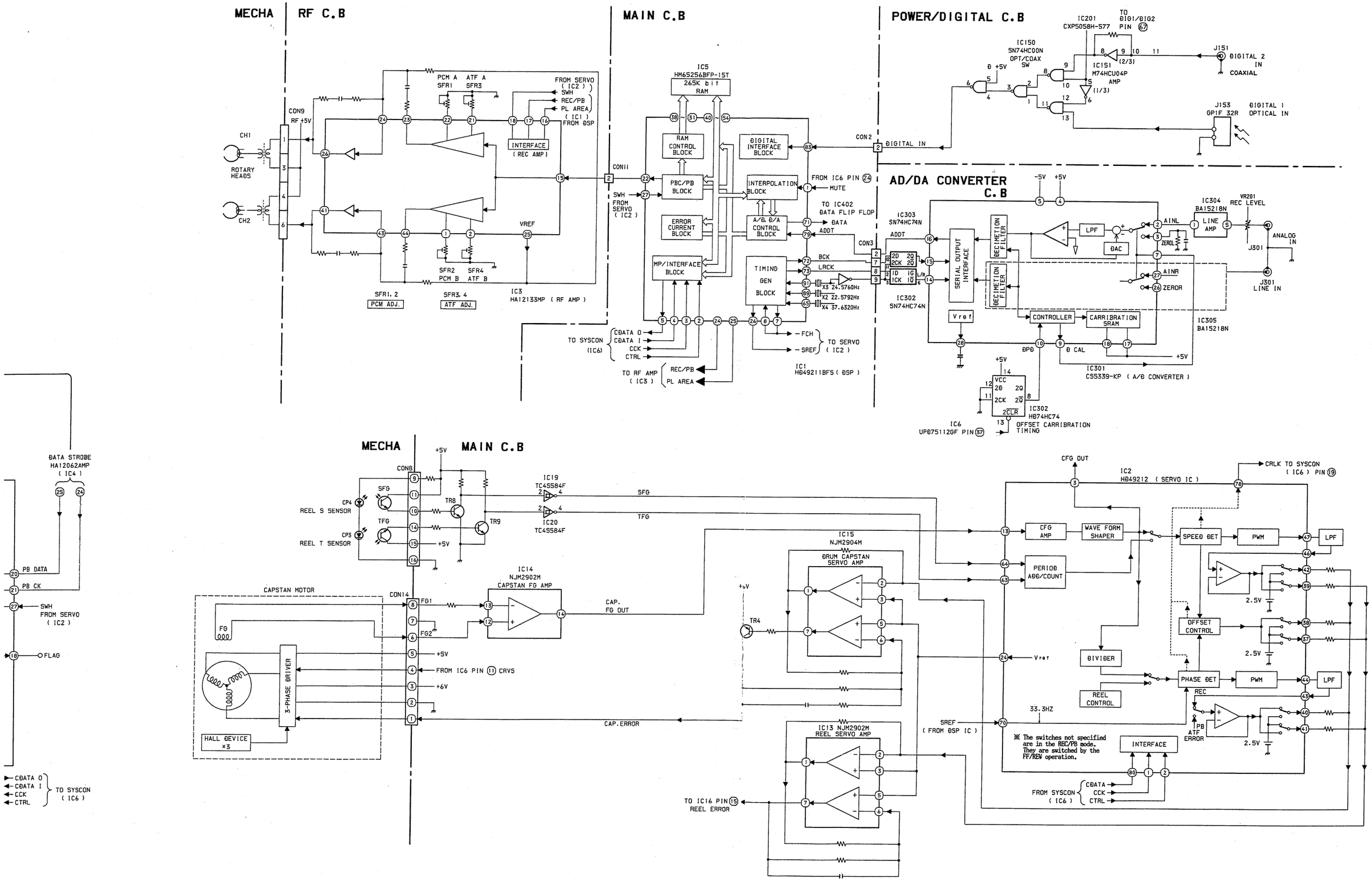
WAVE FORM


①
21μsec
5V LRCK
②
0.65μsec
5V BCK
③
2~3V 256FS
80nsec
④
5V DADT
⑤
5V ADDT
1.35μsec
⑥
300mV~400mV
ATF OUT
15msec
⑦
600mV
ENV
IC2 ⑦ Pin
15msec
⑧
5V SWH
30msec
IC2 ⑲ Pin
⑨
5V CFG
1.75msec
IC2 ③ Pin
⑩
5V DFG
1.25msec
IC2 ⑤ Pin
⑪
600mV~800mV LMI
(EQ OUT)
IC4 ① Pin
⑫
3.5V PBCK
100nsec
IC4 ㉔ Pin
⑬
3.5V PBDT
200nsec
IC4 ㉕ Pin

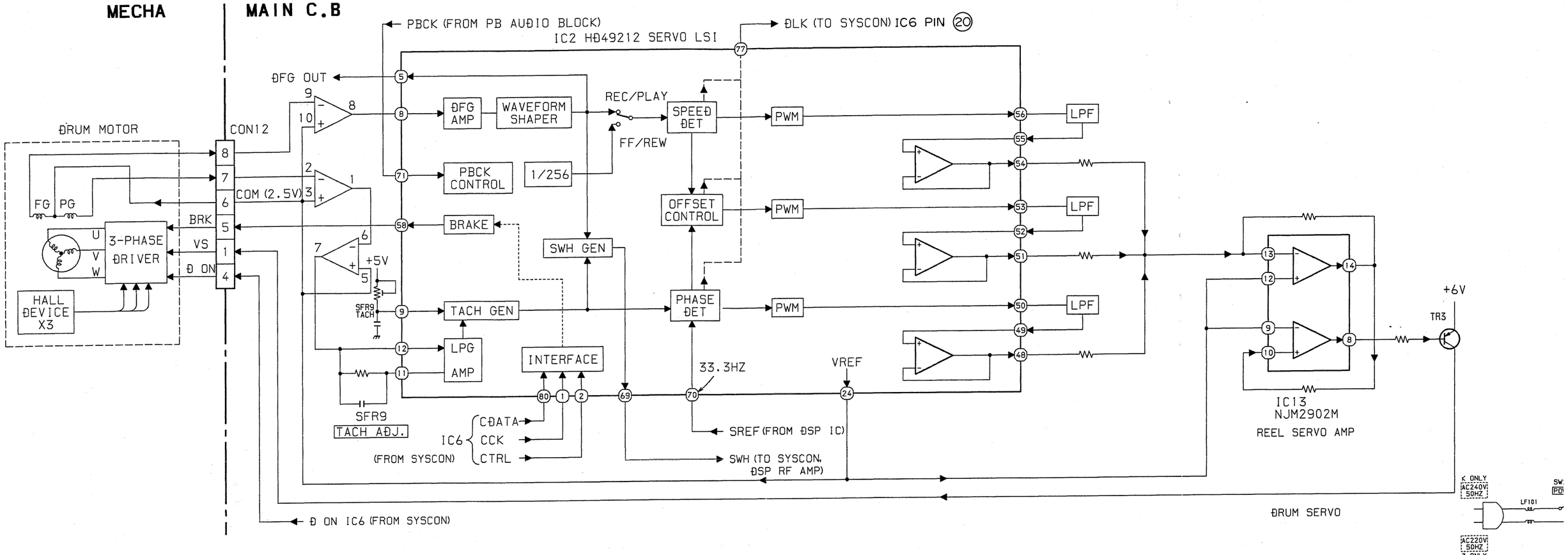

MECHA
RF C.B
MAIN C.B
FROM SERVO (IC2)
SWH
CON9
RF +5V
CH1
CH2
ROTARY HEADS
TR6
TR5
PB SWA
PB CNT
PB SWB
INTERFACE
(PB. EQ. AMP)
HEADS SW
EQ
SFR5
EQ
IC3
HA12133MP
(RF AMP)
CON11
ATF RF
TO SERVO (IC2)
CON11
WAVEFORM SHAPER
LIMITER
PHASE COMPA
LPF
VCO
ASPC
L5
VCO ADJ.
IC4
HA12062AMP
(DATA STROBE)
SFR5. 6
ERROR RATE ADJ.
8V
SFR6
STROBE
PB DATA
PB CK
TO SERVO (IC2)
TO DSP (IC1)

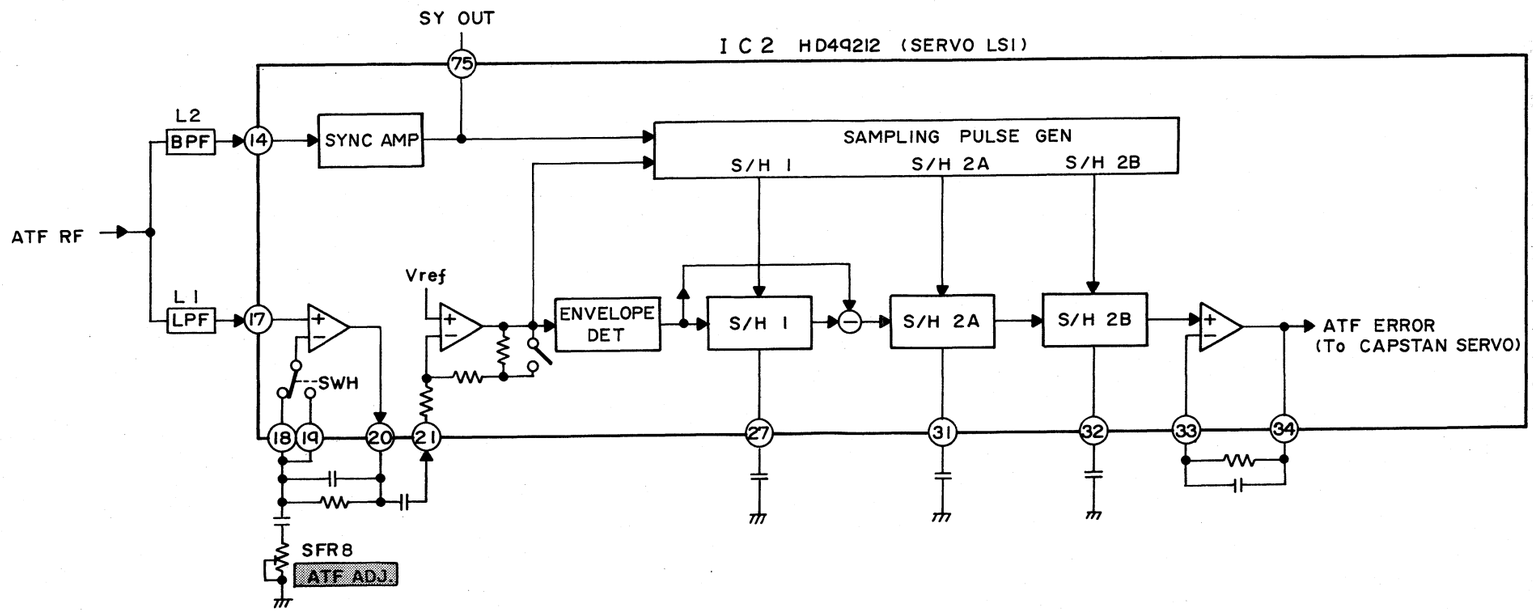

POWER/DIGITAL C.B
DIGITAL2 OUT
COAXIAL
J153
J152
IC152
GP1F 32T
DIGITAL1
OPTICAL OUT
+5V
IC154
SN74HC00N
BUFFER
MAIN C.B
IC5
HM65256BFP-15T
256K bit
RAM
IC1
HD49211BFS (DSP)
DATA STROBE
HA12062AMP
(IC4)
FROM SYSCON
(IC6 PIN 10)
IC12
TC7S02F
CON12
TX
DIGITAL INTERFACE BLOCK
RAM CONTROL BLOCK
AD/DA CONVERTER C.B
EMPH FROM SYSCON
(IC6 PIN 59)
IC401
SAA7322
(D/A CONVERTER IC)
XMUTE
J401-1
J401
LINE OUT
(ANALOG)
J401-2
MUTE
TR404. 411
MUTE
TR406. 407
2/2
1/2
IC404
BA15218D
BUFFER
GAIN SW
TR410
GAIN SW
TR403
SWITCHED CAPACITOR PDM SYSTEM, 1-BIT DAC
2ND NOISE SHAPER
256× OVER SAMPLING DIGITAL FILTER
Vref
RCH
PARALLEL /SERIAL CONV.
DADT
BCK
LRCK
IC402
SN74HC74N
DATA TIMING
CON3
FROM IC6 PIN 24
MUTE
INTERPOLATION BLOCK
REC/PB BLOCK
PB DATA
PB CK
SWH FROM SERVO (IC2)
A/D, D/A CONTROL BLOCK
ERROR CORRECT BLOCK
FLAG
X2 22.5792MHz
X3 24.576MHz
X4 37.632MHz
TIMING GEN BLOCK
MPU INTERFACE BLOCK
CDATA O
CDATA I
CCK
CTRL
TO SYSCON (IC6)
TO SERVO (IC2)
FCH
FCH1
SREF
PIN106
J201
PHONES
VR202
PHONE LEVEL
IC405
BA15218D
HEAD PHONE AMP
TR408. 409
GAIN SW
FS32 FROM SYSCON
(IC6 PIN 58)

BLOCK DIAGRAM – 2 (REC AUDIO/CAPSTAN SERVO)



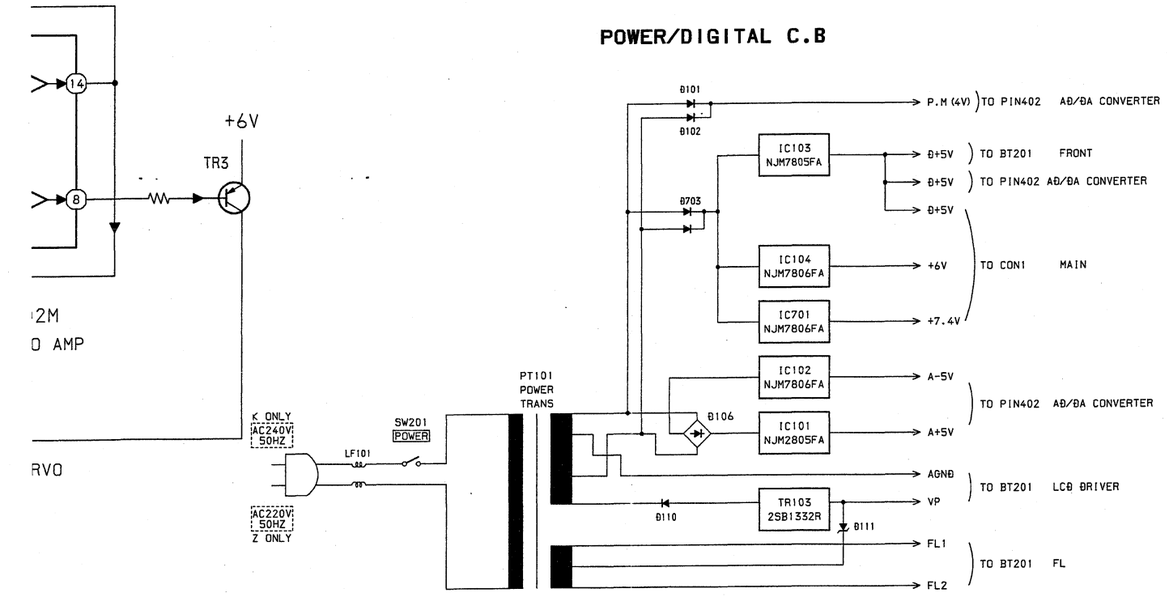
BLOCK DIAGRAM – 3 (DRUM SERVO/ATF SERVO)



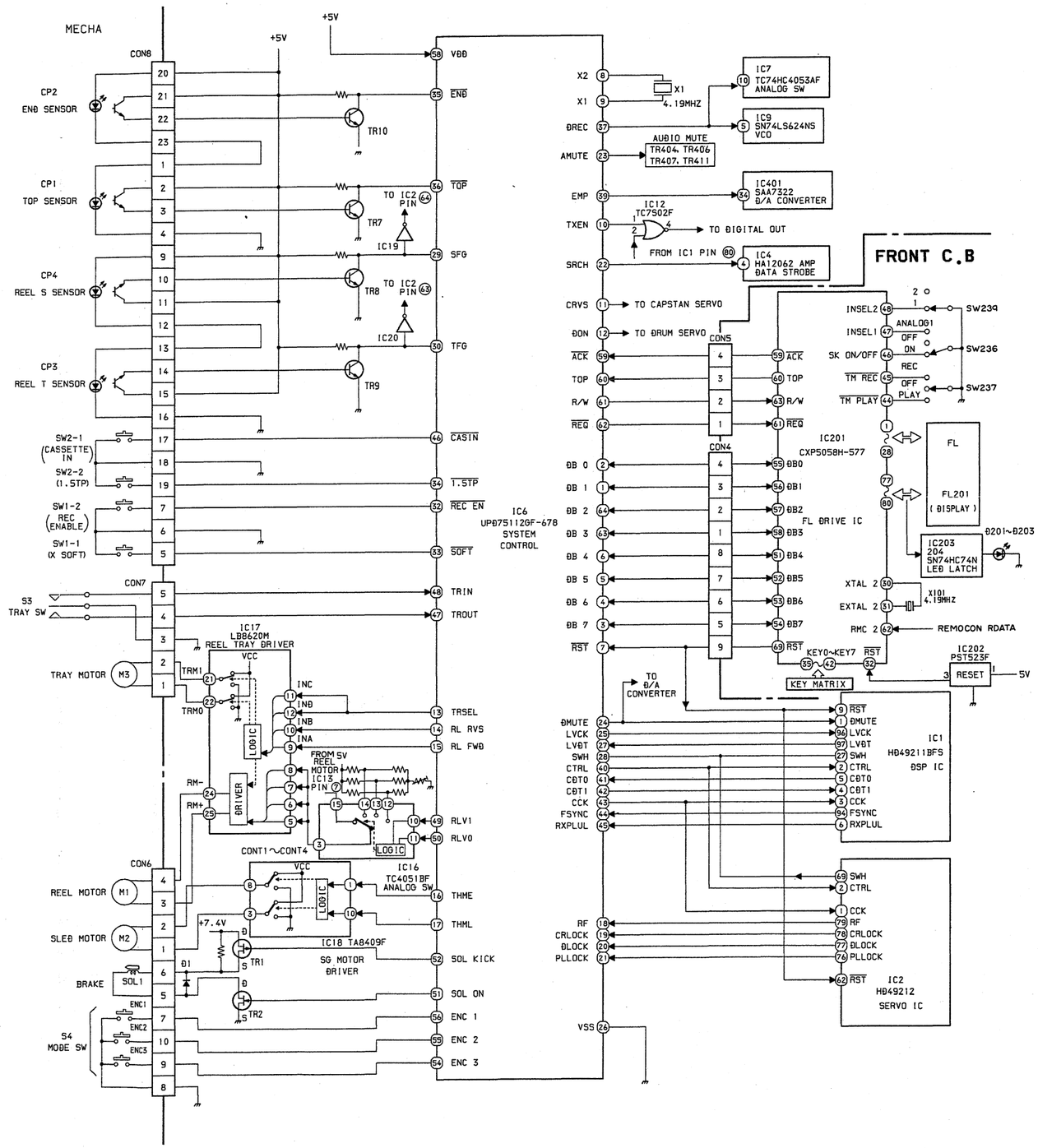


BLOCK DIAGRAM – 4 (SYSTEM CONTROL/POWER)

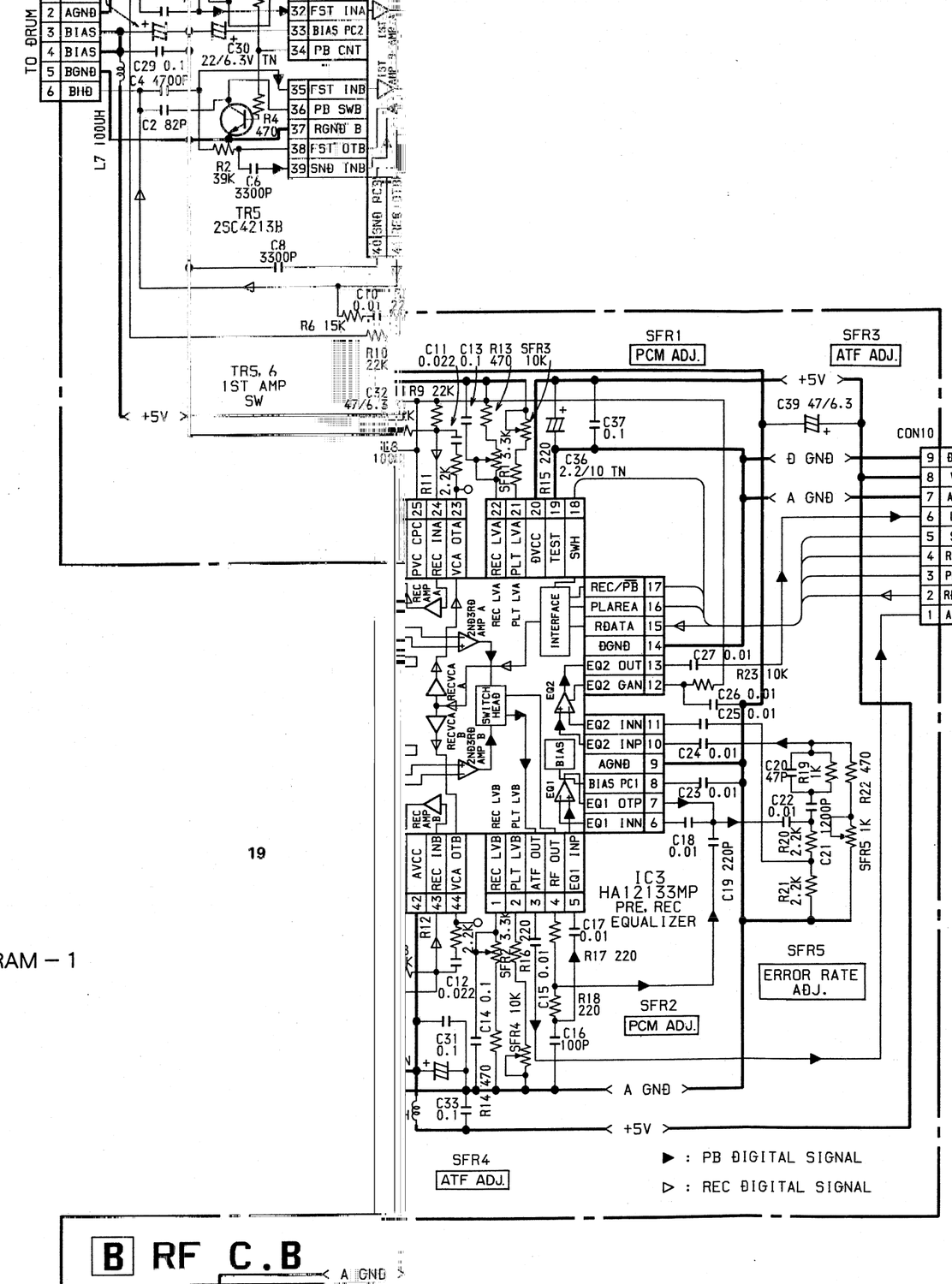
POWER/DIGITAL C.B



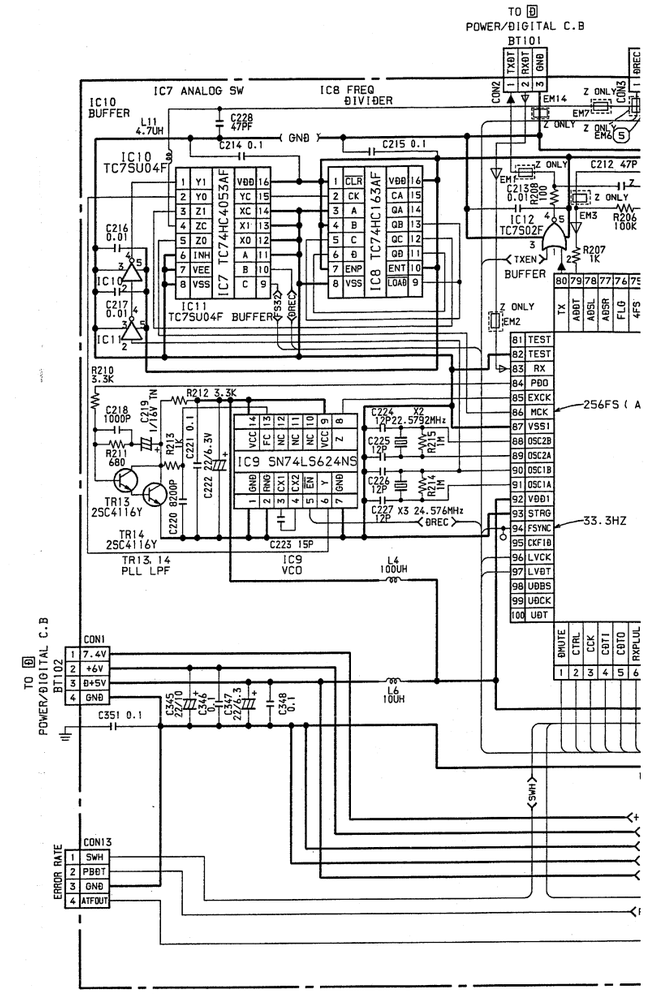
MAIN C.B

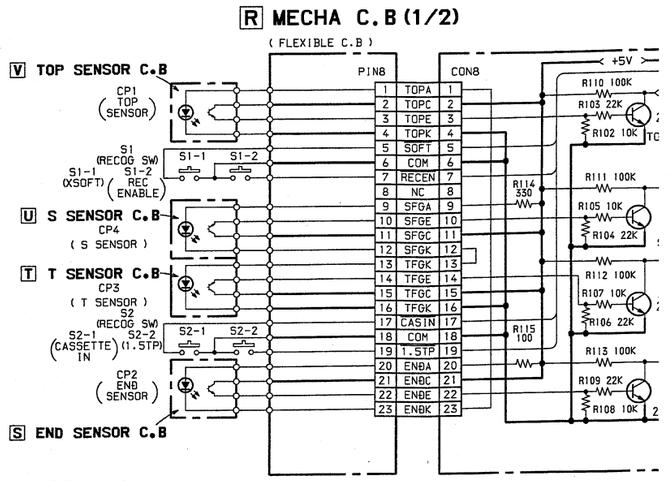


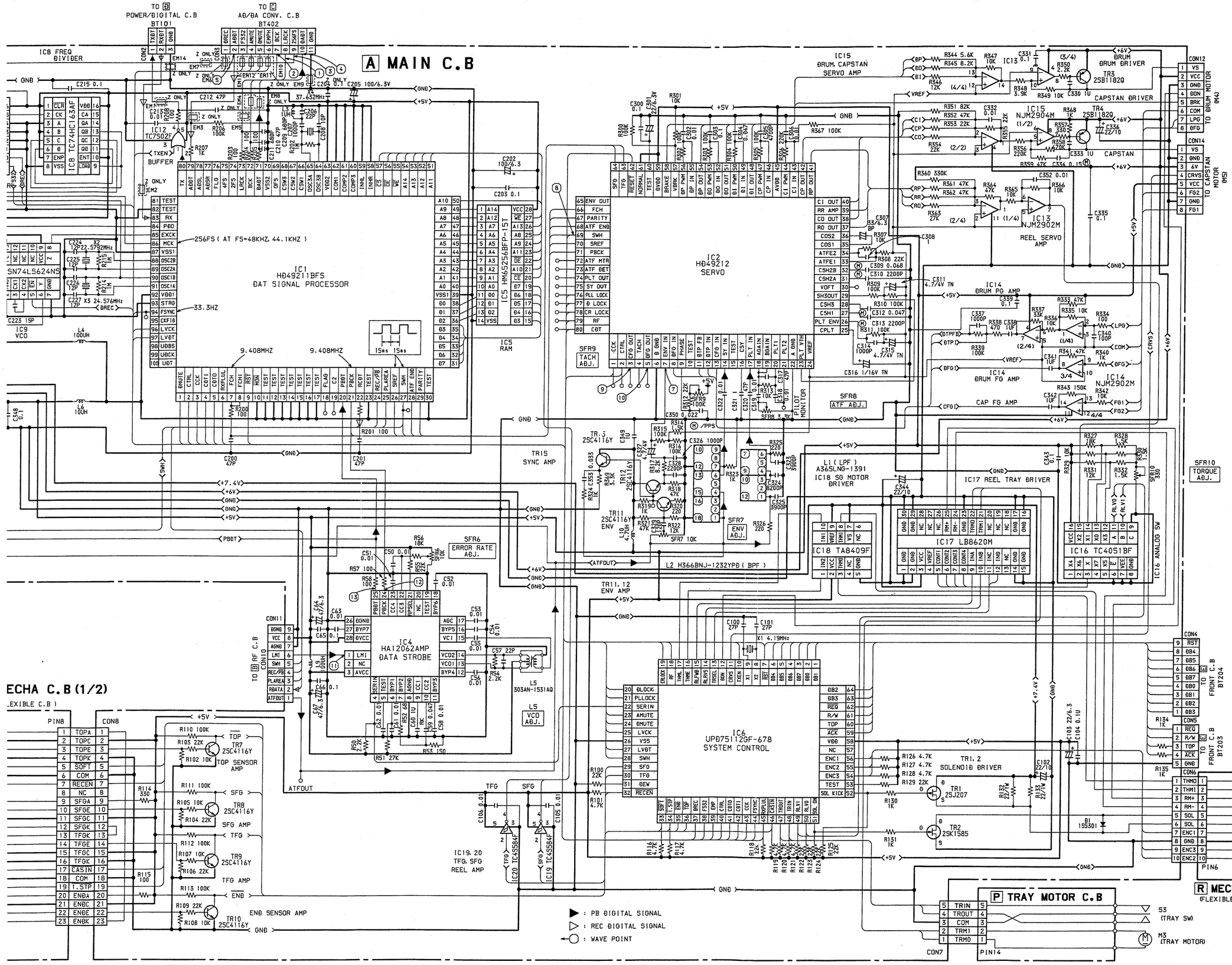
SCHEMATIC DIAGRAM – 1

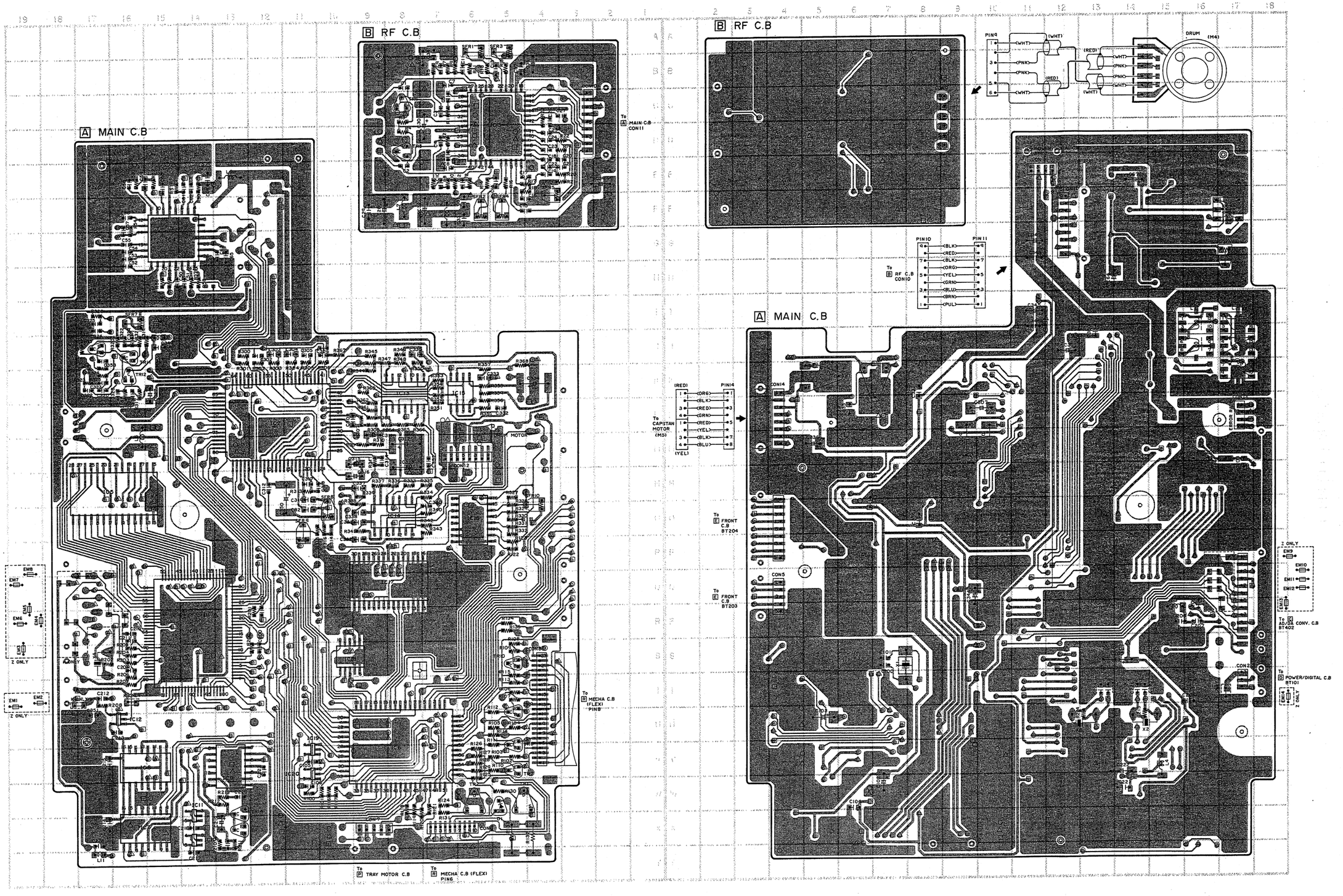


SCHEMATIC DIAGRAM – 2






A MAIN C.B
IC1 HD49211BFS ĐAT SIGNAL PROCESSOR
IC2 HD49212 SERVO
IC4 HA12042AMP ĐATA STROBE
IC5 HM65256BFP-15T RAM
IC6 UPD75112GF-678 SYSTEM CONTROL
IC8 FREQ ĐIVIĐER
IC8 TC74HC163AF
IC9 VCO
IC12 TC7S02F BUFFER
IC13 NJM2902M REEL SERVO AMP
IC14 NJM2902M ĐRUM FG AMP
IC15 NJM2904M ĐRUM, CAPSTAN SERVO AMP
IC16 TC4051BF
IC17 LB8620M REEL TRAY ĐRIVER
IC18 TA8409F 5G MOTOR ĐRIVER
IC19, 20 TC4S584F TFG, SFG REEL AMP
TR1 2SJ207
TR2 2SK1585
TR3 2SC4116Y
TR4 2SB1182Q
TR5 2SC4116Y
TR7 2SC4116Y TOP SENSOR AMP
TR8 2SC4116Y SFG AMP
TR9 2SC4116Y TFG AMP
TR10 2SC4116Y ENĐ SENSOR AMP
TR11 2SC4116Y ENV
TR12 2SC4116Y
TR15 SYNC AMP
TR1, 2 SOLENOIĐ ĐRIVER
L2 H366BNJ-1232YPB (BPF)
L1 (LPF) A365LNG-1391
X1 4.19MHz
X2 17.22.5792MHz
X3 24.576MHz
256FS (AT FS=48KHZ, 44.1KHZ)
33.3HZ
9.408MHZ
37.632MHz
15ms 15ms
SFR6 ERROR RATE AĐJ.
SFR7 ENV AĐJ.
SFR8 ATF AĐJ.
SFR9 TACH AĐJ.
SFR10 TORQUE AĐJ.
L5 VCO AĐJ.
TO POWER/ĐIGITAL C.B
TO AĐ/ĐA CONV. C.B
BT101
BT402
CON2
CON3
CON4
CON5
CON6
CON7
CON10
CON11
CON12
CON14
PIN8
PIN6
PIN14
ĐRUM ĐRIVER
CAPSTAN ĐRIVER
CAPSTAN
REEL SERVO AMP
ĐRUM FG AMP
CAP FG AMP
SOLENOIĐ ĐRIVER
TRAY SW
TRAY MOTOR
SLED MOTOR
REEL MOTOR
BRAKE
MODE SW
TO ĐRUM MOTOR (M4)
TO CAPSTAN MOTOR (M5)
TO FRONT C.B BT204
TO FRONT C.B BT203
TO RF C.B
ATFOUT
TFG
SFG
: PB ĐIGITAL SIGNAL
: REC ĐIGITAL SIGNAL
: WAVE POINT
ECHA C.B (1/2)
(FLEXIBLE C.B)
P TRAY MOTOR C.B
R MECHA C.B (2/2)
(FLEXIBLE C.B)


A MAIN C.B
B RF C.B
B RF C.B
To A MAIN C.B CON11
To B RF C.B CON10
PIN10
PIN11
PIN9
DRUM
(M4)
A MAIN C.B
To CAPSTAN MOTOR (M5)
To F FRONT C.B BT204
To F FRONT C.B BT203
To E ADVAN CONV. C.B BT402
To D POWER/DIGITAL C.B BT101
To E TRAY MOTOR C.B
To E MECHA C.B (FLEX) PIN6
To E MECHA C.B (FLEX) PIN8
Z ONLY

C AD/DA CONV. C.B

D POWER/DIGITAL C.B

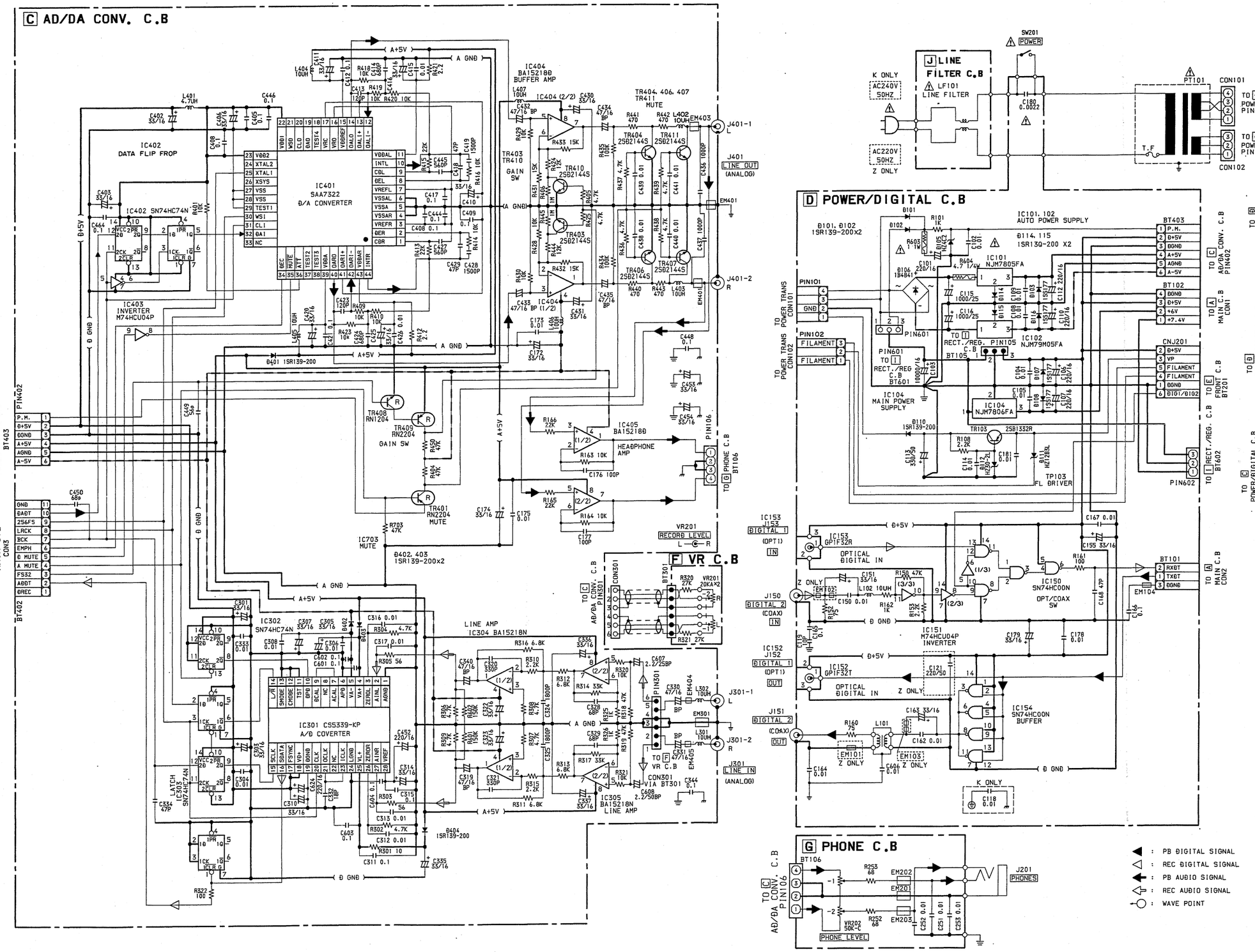
SW201 POWER

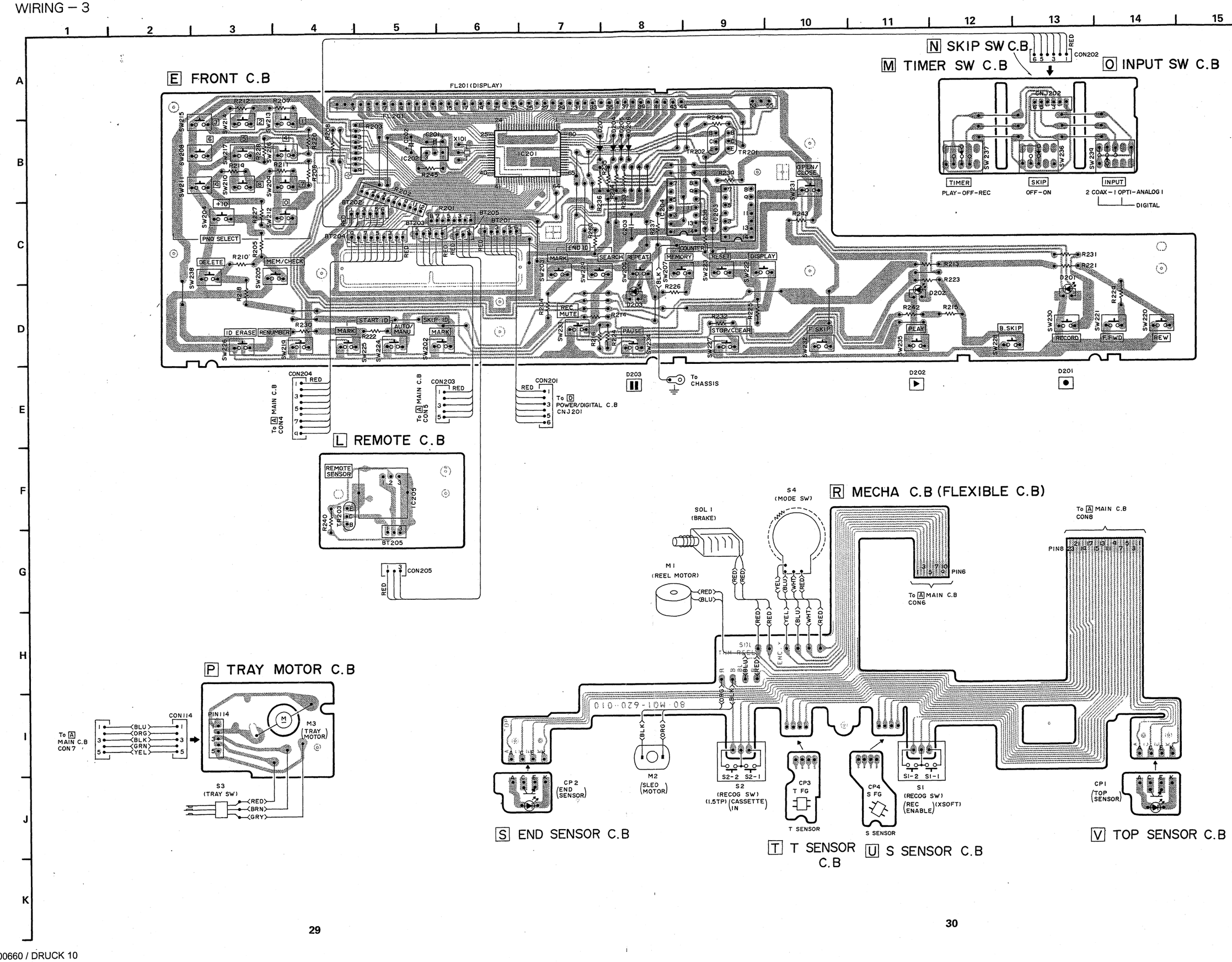
I RECT./REG. C.B

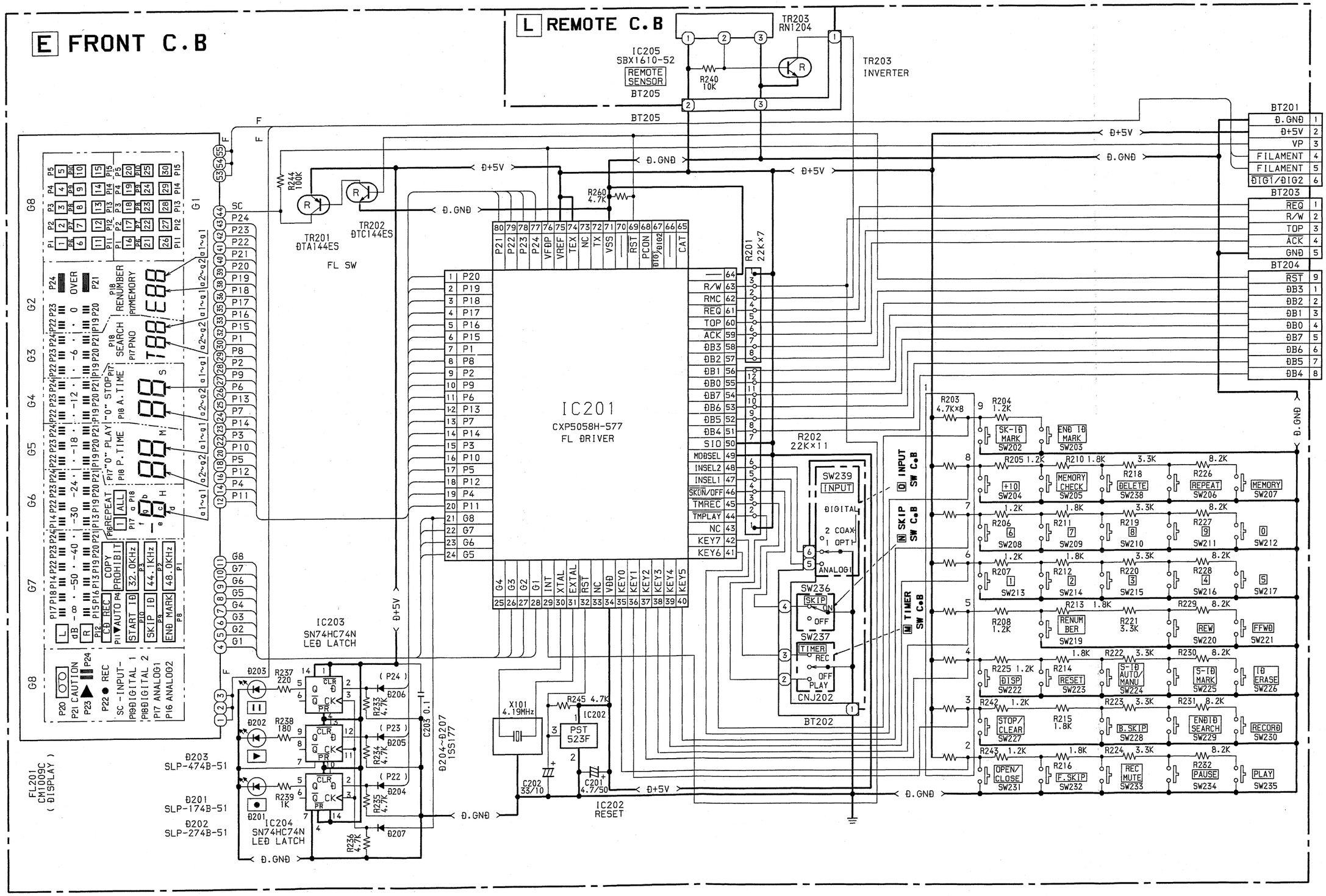
F VR C.B

G PHONE C.B

J LINE FILTER C.B


C AD/DA CONV. C.B
IC402 DATA FLIP FROP
IC401 SAA7322 Ð/A CONVERTER
IC403 INVERTER M74HCU04P
IC404 BA15218Ð BUFFER AMP
IC404 (2/2)
TR404, 406, 407 TR411 MUTE
TR403 TR410 GAIN SW
TR410 2SD2144S
TR403 2SD2144S
TR404 2SD2144S
TR411 2SD2144S
TR406 2SD2144S
TR407 2SD2144S
IC402 SN74HC74N
IC404 (1/2)
IC405 BA15218Ð
HEADPHONE AMP
TR408 RN1204
TR409 RN2204 GAIN SW
TR401 RN2204 MUTE
IC703 MUTE
VR201 RECORD LEVEL
Ð402, 403 1SR139-200x2
Ð401 1SR139-200
Ð404 1SR139-200
F VR C.B
VR C.B VIA BT301
CON301 VIA BT301
IC302 SN74HC74N
IC301 CS5339-KP A/Ð COVERTER
LATCH IC303 SN74HC74N
LINE AMP IC304 BA15218N
IC305 BA15218N LINE AMP
J401-1 L
J401-2 R
J401 LINE OUT (ANALOG)
J301-1 L
J301-2 R
J301 LINE IN (ANALOG)
A+5V
A GND
Ð+5V
Ð GND
TO B POWER/DIGITAL C.B BT403
TO A MAIN C.B CON3
TO B PHONE C.B BT106
TO C AB/ÐA CONV. C.B PIN106
TO C AB/ÐA CONV. C.B PIN301
J LINE FILTER C.B
LF101 LINE FILTER
K ONLY AC240V 50HZ
Z ONLY AC220V 50HZ
SW201 POWER
PT101
CON101
CON102
TO B POWER/DIGITAL C.B PIN101
TO B POWER/DIGITAL C.B PIN102
D POWER/DIGITAL C.B
IC101, 102 AUTO POWER SUPPLY
Ð101, Ð102 1SR139-200x2
Ð114, 115 1SR130-200 X2
IC101 NJM7805FA
IC102 NJM79M05FA
IC104 MAIN POWER SUPPLY
IC104 NJM7806FA
TR103 2SB1332R
TP103 FL DRIVER
TO POWER TRANS CON101
TO POWER TRANS CON102
TO I RECT./REG. C.B BT601
TO I RECT./REG. PIN105 C.B
TO E FRONT C.B BT201
TO I RECT./REG. C.B BT602
TO C AB/ÐA CONV. C.B PIN402
TO A MAIN C.B CON1
I RECT./REG.C.B
IC103 NJM7805FA MAIN POWER SUPPLY
IC701 NJM7806FA MOTOR DRIVE POWER SUPPLY
IC153 J153 DIGITAL 1 (OPT1) IN
IC153 GP1F32R OPTICAL ÐIGITAL IN
IC150 SN74HC00N OPT/COAX SW
IC151 M74HCU04P INVERTER
IC152 J152 DIGITAL 1 (OPT1) OUT
IC152 GP1F32T OPTICAL ÐIGITAL IN
IC154 SN74HC00N BUFFER
J150 DIGITAL 2 (COAX) IN
J151 DIGITAL 2 (COAX) OUT
TO A MAIN C.B CON2
G PHONE C.B
J201 PHONES
PHONE LEVEL
TO C AB/ÐA CONV. C.B PIN106
: PB ÐIGITAL SIGNAL
: REC ÐIGITAL SIGNAL
: PB AUÐIO SIGNAL
: REC AUÐIO SIGNAL
: WAVE POINT


E FRONT C.B
FL201(DISPLAY)
N SKIP SW C.B
M TIMER SW C.B
O INPUT SW C.B
CON202
RED
TIMER
PLAY-OFF-REC
SKIP
OFF-ON
INPUT
2 COAX-1 OPTI-ANALOG 1
DIGITAL
PNO SELECT
DELETE
MEM/CHECK
ID ERASE
RENUMBER
START ID
SKIP ID
AUTO/MANU
MARK
END ID
SEARCH
REPEAT
MEMORY
COUNTER
RESET
DISPLAY
REC MUTE
PAUSE
STOP/CLEAR
F.SKIP
B.SKIP
PLAY
RECORD
F.FWD
REW
OPEN/CLOSE
D201
D202
D203
To CHASSIS
CON204
To A MAIN C.B CON4
CON203
To A MAIN C.B CON5
CON201
To D POWER/DIGITAL C.B CNJ201
L REMOTE C.B
REMOTE SENSOR
BT205
CON205
P TRAY MOTOR C.B
CON114
To A MAIN C.B CON7
M3 (TRAY MOTOR)
S3 (TRAY SW)
R MECHA C.B (FLEXIBLE C.B)
S4 (MODE SW)
SOL 1 (BRAKE)
M1 (REEL MOTOR)
To A MAIN C.B CON8
To A MAIN C.B CON6
PIN6
PIN8
S END SENSOR C.B
CP2 (END SENSOR)
M2 (SLED MOTOR)
S2 (RECOG SW) (1.5TP) (CASSETTE IN)
CP3 T FG
T SENSOR
CP4 S FG
S SENSOR
S1 (RECOG SW) (REC ENABLE) (XSOFT)
T T SENSOR C.B
U S SENSOR C.B
V TOP SENSOR C.B
CP1 (TOP SENSOR)


E FRONT C.B
L REMOTE C.B
IC205
SBX1610-52
REMOTE SENSOR
BT205
TR203
RN1204
R240
10K
TR203
INVERTER
BT205
Đ+5V
Đ.GNĐ
R244
100K
TR201
ĐTA144ES
TR202
ĐTC144ES
FL SW
R260
4.7K
IC201
CXP5058H-577
FL ĐRIVER
R201
22K×7
R202
22K×11
IC203
SN74HC74N
LEĐ LATCH
IC204
SN74HC74N
LEĐ LATCH
X101
4.19MHz
IC202
PST
523F
RESET
C202
33/10
C201
4.7/50
C203 0.1
Đ204~Đ207
1SS177
Đ203
SLP-474B-51
Đ201
SLP-174B-51
Đ202
SLP-274B-51
FL201
CM1009C
(DISPLAY)
SW239
INPUT
ĐIGITAL
2 COAX
1 OPT
ANALOG1
SW236
SKIP
ON
OFF
SW237
TIMER
REC
OFF
PLAY
CNJ202
BT202
D INPUT SW C.B
N SKIP SW C.B
M TIMER SW C.B
BT201
Đ.GNĐ
Đ+5V
VP
FILAMENT
FILAMENT
ĐIG1/ĐIG2
TO B POWER/ĐIGITAL C.B CNJ201
BT203
REQ
R/W
TOP
ACK
GNĐ
TO A MAIN C.B CON5
BT204
RST
ĐB3
ĐB2
ĐB1
ĐB0
ĐB7
ĐB6
ĐB5
ĐB4
TO A MAIN C.B CON4
R203
4.7K×8
R204
1.2K
SW202
SW203
SW204
SW205
SW238
SW206
SW207
SW208
SW209
SW210
SW211
SW212
SW213
SW214
SW215
SW216
SW217
SW219
SW220
SW221
SW222
SW223
SW224
SW225
SW226
SW227
SW228
SW229
SW230
SW231
SW232
SW233
SW234
SW235

IC DESCRIPTION

IC,CXP5058H – 577

Pin No.	Pin Name	I/O	Description
1	P20	O	FL display segment data output
2	P19		
3	P18		
4	P17		
5	P16		
6	P15		
7	P1		
8	P8		
9	P2		
10	P9		
11	P6		
12	P13		
13	P7		
14	P14		
15	P3		
16	P10		
17	P5		
18	P12		
19	P4		
20	P11		
21	G8	O	FL display grid output
22	G7		
23	G6		
24	G5		
25	G4		
26	G3		
27	G2		
28	G1		
29	INT	I	(REQ) Interface with main microprocessor.
30	XTAL	–	A 4.19MHz ceramic oscillator is connected.

Pin No.	Pin Name	I/O	Description
31	EXTAL	–	A 4.19MHz ceramic oscillator is connected.
32	$\overline{RST}$	I	Microprocessor reset pin.
33	NC	–	Not used.
34	VDD	–	Power supply (+5V).
35	KEY0	I	Key input.
36	KEY1		
37	KEY2		
38	KEY3		
39	KEY4	I	
40	KEY5		
41	KEY6		
42	KEY7		
43	NC	–	Not used.
44	$\overline{TMPLAY}$	I	TIMER PLAY input pin (Low : TIMER PLAY).
45	$\overline{TMREC}$	I	TIMER REC input pin (Low : TIMER REC).
46	$\overline{SKIP\ ON}$/OFF	I	Skip operation on/off.
47	INSEL 1	I	Input SELECT 1.
48	INSEL 2	I	Input SELECT 2.
49	MODSEL	I	Input MODE SELECT (H : XD – S1100 L : XD – S260) (+5V).
50	SIO	I/O	Serial I/O for synchronized operation (+5V).
51	DB4	I/O	Main microprocessor data bus.
52	DB5		
53	DB6		
54	DB7		
55	DB0		
56	DB1		
57	DB2		
58	DB3		
59	$\overline{ACK}$	O	Interface with main microprocessor.
60	TOP		

Pin No.	Pin Name	I/O	Description
61	$\overline{REQ}$	I	Interface with main microprocessor.
62	RMC	I	Remote control input pin.
63	R/W	I	Interface with main microprocessor.
64	——	–	GND
65	CAT	–	Not used.
66	——	–	Not used.
67	DIG1/2	I	Recording input selection (Not used).
68	PCONT	O	POWER control output (Not used).
69	$\overline{RST}$	O	Reset output.
70	——	–	Not used.
71	VSS	–	GND
72	TX	–	Not used.
73	NC	–	Not used.
74	TEX	–	(+5V)
75	V REF	–	(+5V)
76	V FDP	–	Negative power supply of the FL display.
77	P24	O	FL display segment data output.
78	P23		
79	P22		
80	P21		

IC,UPD75112GF – 678

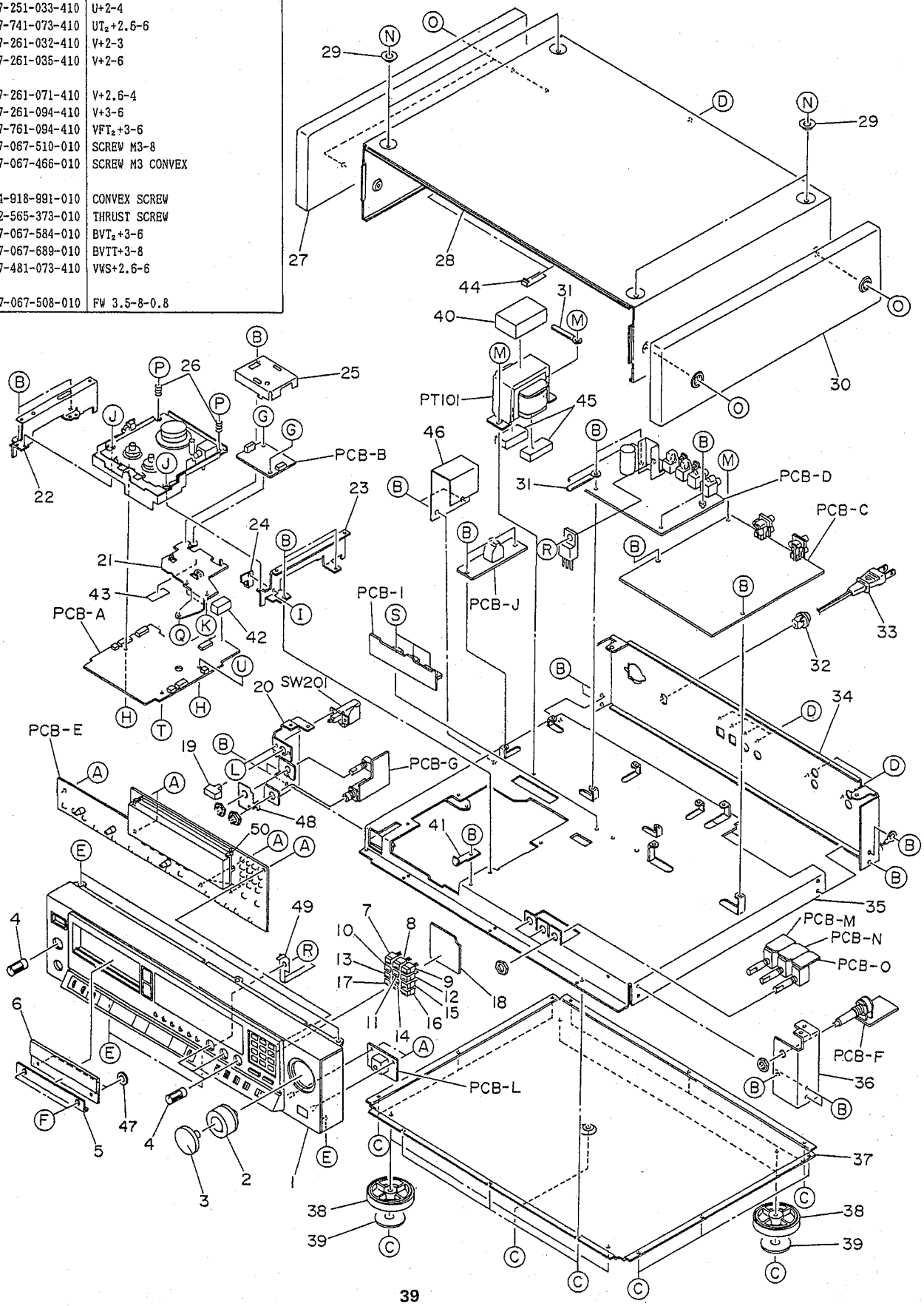
Pin No.	Pin Name	I/O	Description
1	DB1	I/O	Data bus for sub-microprocessor
2	DB0		
3	DB7		
4	DB6		
5	DB5		
6	DB4		
7	$\overline{RST}$	I	Microprocessor reset pin (Low : RESET)
8	X2	–	A 4.19MHz crystal oscillator is connected.
9	X1		
10	TXEN	O	Digital output enable signal
11	CRVS	O	Capstan reversing control signal
12	DON	O	Drum on/off signal (High : ON)
13	TRSEL	O	Tray/reel motor selection (High : Tray motor)
14	RLRVS	O	Rotates the reel motor in reverse
15	RLFWD	O	Rotates the reel motor forward.
16	THME	O	Sets the sledding motor to the EJECT state.
17	THML	O	Sets the sledding motor to the LOAD state.
18	RF	I	Detects whether an RF signal is present or not.
19	CRLOCK	I	Locks the capstan at High.
20	DLOCK	I	Locks the drum at High.
21	PLLOCK	I	Locks the PLL at High.
22	SERIN	O	Normal/Search
23	A MUTE	O	Mutes an audio signal at Low.
24	D MUTE	O	Mutes a digital signal at High
25	LVCK	O	Outputs a clock signal to transfer the level data.
26	VSS	–	GND
27	LVDT	I	Level data input
28	SWH	I	Switching pulse input
29	SFG	I	Supply reel FG input
30	TFG	I	Take-up reel FG input

Pin No.	PIn Name	I/O	Discription
31	DEW	I	Pulled down to detect condensation
32	$\overline{\text{RECEN}}$	I	Enables recording at Low.
33	$\overline{\text{SOFT}}$	I	Detects a recorded tape at High.
34	$\overline{\text{1.5TP}}$	I	Detects a 1.5-time speed tape (with the track pitch 1.5 times the normal tape) at High.
35	$\overline{\text{END}}$	I	END sensor (Low : END)
36	$\overline{\text{TOP}}$	I	TOP sensor (Low : TOP)
37	DREC	O	Enables the VCO.
38	FS32	O	Switchs the sampling frequency (256Fs) to 32kHz (High : 32kHz)
39	EMP	O	Emphasis on/off
40	CTRL	O	Interface with signal processing and servo LSIs.
41	CDTO	I	Interface with signal processing LSI
42	CDTI	O	Interface with signal processing and servo LSIs.
43	CCK	O	Interface with signal processing and servo LSIs.
44	FSYNC	I	Frame sync signal
45	RXPLUL	I	Unlocks the digital input PLL at High.
46	$\overline{\text{CASIN}}$	I	Low input detects that a cassette is loaded.
47	TROUT	I	Low input detects that the tray is opened.
48	TRIN	I	Low input detects that the tray is closed.
49	RLV1	O	Reel motor driver control signal
50	RLV0		
51	SOLON	O	Turns the solenoid on at High.
52	SOLKICK	O	Kicks the solenoid at Low.
53	TEST	I	TEST pin
54	ENC3	I	Low input sets the rotary encoder to the FWD position.
55	ENC2	I	Low input sets the rotary encoder to the STOP position.
56	ENC1	I	Low input sets the rotary encoder to the EJECT position.
57	NC	–	Not used.
58	VDD	–	Power supply
59	$\overline{\text{ACK}}$	I	Interface with sub-microprocessor
60	TOP		

Pin No.	Pin Name	I/O	Description
61	R/W	O	Interface with sub-microprocessor
62	$\overline{REQ}$		
63	DB3	I/O	Data bus for sub-microprocessor
64	DB2		

EXPLODED VIEW – 1

REF.NO.	PART NO.	DESCRIPTION
A	87-751-096-410	VT_2+3-10
B	87-067-688-010	BVTT+3-6
C	87-067-716-010	BVTT+3-6(B)
D	87-067-660-010	BVT_2+3-8 W/O SLOT(B)
E	87-591-094-410	QIT+3-6(G)
F	84-738-011-010	S-SCREW TRAY
G	87-251-033-410	U+2-4
H	87-741-073-410	UT_2+2.6-6
I	87-261-032-410	V+2-3
J	87-261-035-410	V+2-6
K	87-261-071-410	V+2.6-4
L	87-261-094-410	V+3-6
M	87-761-094-410	VFT_2+3-6
N	87-067-510-010	SCREW M3-8
O	87-067-466-010	SCREW M3 CONVEX
P	94-918-991-010	CONVEX SCREW
Q	82-565-373-010	THRUST SCREW
R	87-067-584-010	BVT_2+3-6
S	87-067-689-010	BVTT+3-8
T	87-481-073-410	VWS+2.6-6
U	87-067-508-010	FW 3.5-8-0.8

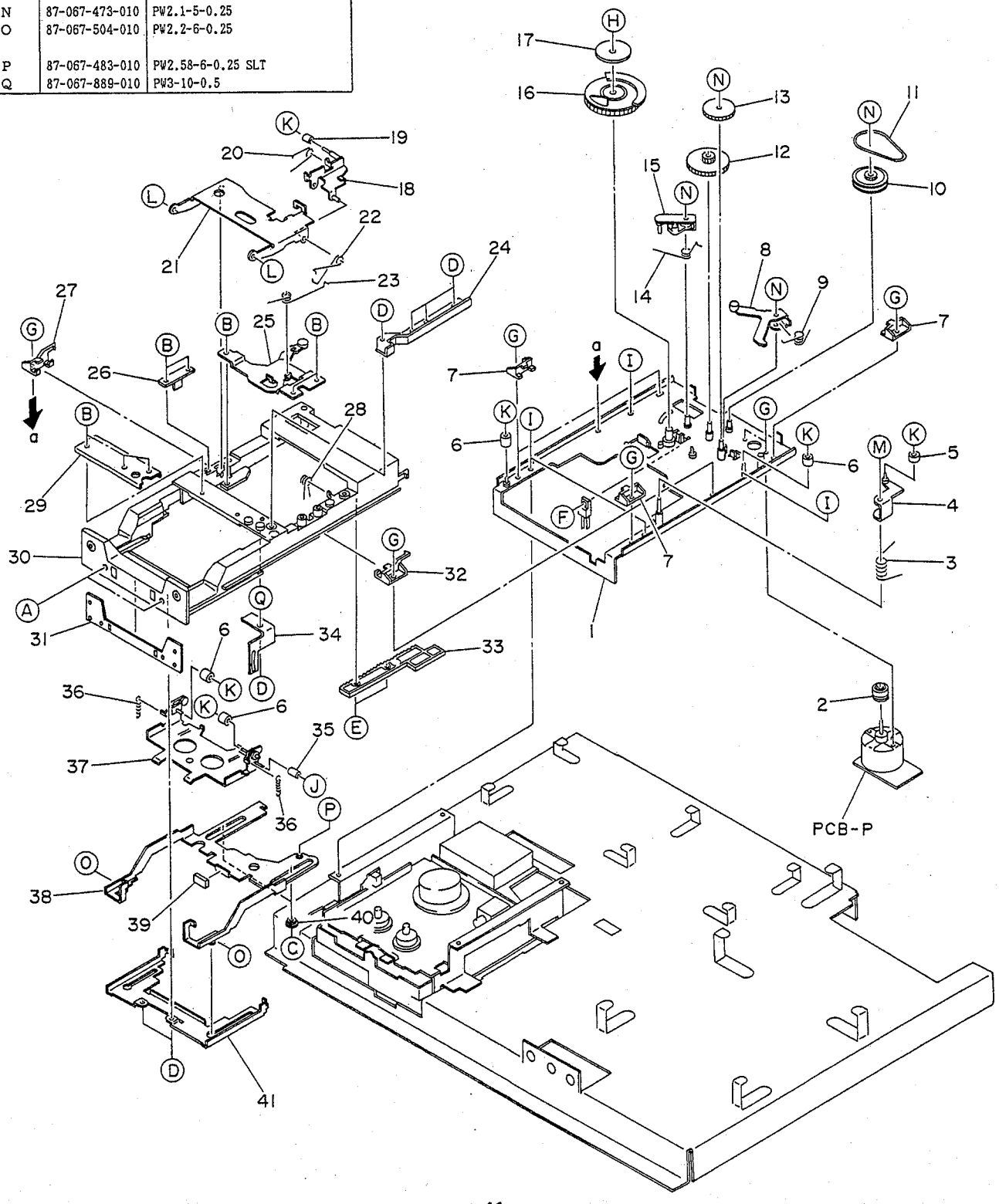


MECHANICAL PARTS LIST

PART NO. CHANGED TO	REF. NO.	PART NO.	DESCRIPTION	COMMON MODEL	Q. TY
	1-1	09-057-100-010	CABINET FRONT ASSY	*	1
	1-2	★84-738-008-010	KNOB VOLUME L ASSY		1
	1-3	★84-738-009-110	KNOB VOLUME R ASSY		1
	1-4	★84-738-060-010	KNOB, ROTARY		4
	1-5	★84-738-006-010	PANEL, TRAY		1
	1-6	★84-738-007-110	WINDOW, TRAY		1
	1-7	★84-738-040-010	BUTTON, 10KEY 1		1
	1-8	★84-738-041-010	BUTTON, 10KEY 2		1
	1-9	★84-738-042-010	BUTTON, 10KEY 3		1
	1-10	★84-738-043-010	BUTTON, 10KEY 4		1
	1-11	★84-738-044-010	BUTTON, 10KEY 5		1
	1-12	★84-738-045-010	BUTTON, 10KEY 6		1
	1-13	★84-738-046-010	BUTTON, 10KEY 7		1
	1-14	★84-738-047-010	BUTTON, 10KEY 8		1
	1-15	★84-738-048-010	BUTTON, 10KEY 9		1
	1-16	★84-738-014-010	BUTTON, 10KEY 10		1
	1-17	★84-738-049-010	BUTTON, 10KEY 0		1
	1-18	★84-738-209-010	CUSHION, 10KEY		1
	1-19	★84-721-023-010	BUTTON, POWER		1
	1-20	★84-738-202-210	HOLDER, SIDE L		1
	1-21	---	HOLDER, RF		1
	1-22	★84-731-461-110	HOLDER, CASSETTE L		1
	1-23	★84-731-462-210	HOLDER, CASSETTE R		1
	1-24	★84-738-226-010	HOLDER, PCB A		1
	1-25	★80-MQ1-207-110	COVER, SHIELD		1
	1-26	★84-731-233-010	C-SPRING, MD		1
	1-27	★84-738-038-010	SIDE WOOD L ASSY		1
	1-28	★84-738-055-010	CABINET, STEEL		1
	1-29	★84-738-018-010	RING, TOP		4
	1-30	★84-738-039-010	SIDE WOOD R ASSY		1
	1-31	---	BINDER, WIRE		2
	1-32	87-085-185-010	BUSHING, AC CORD E		1
	1-33	87-034-760-010	AC CORD K (K)		1
	1-33	82-187-797-010	AC CORD E (Z)		1
	1-34	★84-738-069-010	PANEL, REAR KB (K)		1
	1-34	★84-738-070-010	PANEL, REAR ZB (Z)		1
	1-35	---	MAIN CHASSIS ASSY		1
	1-36	★84-738-203-010	HOLDER, SIDE R		1
	1-37	★84-738-021-010	PANEL, BOTTOM		1
	1-38	★84-738-022-010	FOOT		4
	1-39	★84-761-008-019	CUSHION, FOOT		4
	1-40	★84-738-230-010	S-CUSHION, 20-30-50		1
	1-41	★84-731-451-010	HOLDER, SW		1
	1-42	★80-MQ1-213-010	S-CUSHION, 20-15-13		1
	1-43	★80-MQ1-209-010	CLOTH, 20-7		4
	1-44	★84-738-240-210	P-SPRING, B (Z)		2
	1-45	★84-738-231-010	G-CUSHION, 7.5-15-35		2
	1-46	★84-738-236-010	SHEET, COVER		1
	1-47	★84-738-238-010	SHEET, PVC 12-7.2-0.3		2
	1-48	★84-738-229-010	PLATE, EARTH HP		1
	1-49	★84-738-234-010	PLATE, EARTH C		1
	1-50	★84-738-225-310	GUIDE, FL		1

EXPLODED VIEW – 2

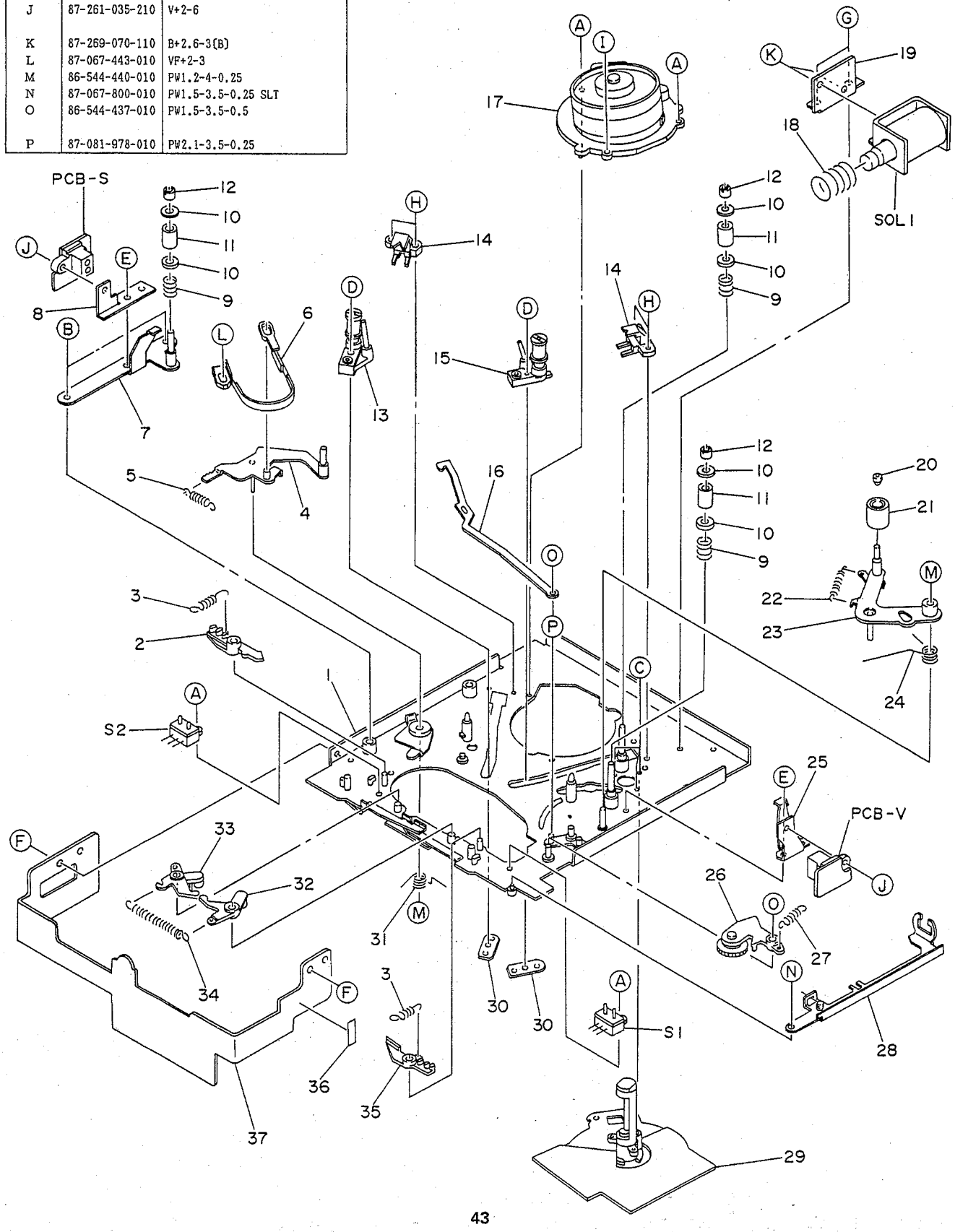
REF.NO.	PART NO.	DESCRIPTION
A	87-233-033-410	Q+2-4(B)
B	87-723-073-410	QT₂+2.6-6
C	87-067-296-010	S-SCREW+2-4
D	87-743-073-410	UT₂+2.6-6(B)
E	87-743-074-010	UT₂+2.6-8
F	87-267-509-310	V+1.4-4
G	87-261-071-410	V+2.6-4
H	87-481-071-410	SCREW VWS+2.6-4
I	87-481-073-410	SCREW VWS+2.6-6
J	87-067-128-010	PW0.8-2-0.25
K	87-067-137-110	PW1.5-3.5-0.25
L	86-511-477-010	PW1.5-3.5-0.25
M	87-067-293-010	PW2-4.5-0.5
N	87-067-473-010	PW2.1-5-0.25
O	87-067-504-010	PW2.2-6-0.25
P	87-067-483-010	PW2.58-6-0.25 SLT
Q	87-067-889-010	PW3-10-0.5



PART NO. CHANGED TO	REF. NO.	PART NO.	DESCRIPTION	COMMON MODEL	Q. TY
	2-1	★84-731-401-110	CHASSIS CASSETTE ASSY		1
	2-2	★84-731-488-010	PULLY, MOTOR		1
	2-3	★84-731-485-010	T-SPRING, TL HOLDER		1
	2-4	★84-731-480-010	LEVER TL SAFETY ASSY		1
	2-5	★84-731-483-010	COLLAR, TL		1
	2-6	★84-731-416-010	COLLAR, CASSETTE		4
	2-7	★84-731-429-010	GUIDE, TRAY F		4
	2-8	★84-731-471-010	LEVER TRAY LOCK ASSY		1
	2-9	★84-731-478-010	T-SPRING, T-LOCK		1
	2-10	★84-731-427-010	GEAR, RELAY A		1
	2-11	★84-731-496-010	BELT, SQ1. 5-3. 2		1
	2-12	★84-731-466-010	GEAR, RELAY B		1
	2-13	★84-731-467-010	GEAR, RELAY C		1
	2-14	★84-731-438-010	T-SPRING, SL LOCK		1
	2-15	★84-731-497-210	SL LOCK ASSY		1
	2-16	★84-731-426-010	CAM		1
	2-17	★84-731-487-010	PLATE, STOPPER		1
	2-18	★84-731-420-210	LEVER CASSETTE BOX ASSY		1
	2-19	★84-731-425-010	COLLAR, CAM		1
	2-20	★84-731-469-010	T-SPRING, CASSETTE LEVER		1
	2-21	★84-731-417-110	ARM CASSETTE BOX ASSY		1
	2-22	★84-731-465-010	T-SPRING, ARM		1
	2-23	★84-731-474-110	T-SPRING, PUSH-OUT		1
	2-24	★84-731-484-010	GUIDE, TL		1
	2-25	★84-731-475-010	HOLDER LEVER ASSY		1
	2-26	★84-731-446-010	LEVER, STOPPER		1
	2-27	★84-731-463-010	GUIDE, TRAY ML		1
	2-28	★84-731-459-010	T-SPRING, TRAY LOCK		1
	2-29	★84-731-499-010	PLATE, T		1
	2-30	★84-731-033-010	TRY		1
	2-31	★84-731-476-110	PLATE, TRAY F		1
	2-32	★84-731-464-010	GUIDE, TRAY MR		1
	2-33	★84-731-445-010	RACK, TRAY		1
	2-34	★84-731-508-010	HOLDER, GUIDE		1
	2-35	★84-731-415-010	COLLAR, GUIDE		1
	2-36	★84-731-468-010	E-SPRING, CASSETTE GUARD		2
	2-37	★84-731-406-210	BOX ASSY		1
	2-38	★84-731-439-210	PLATE CASSETTE PUSH ASSY		1
	2-39	★84-731-495-110	S-CUSHION, 14-4-3		1
	2-40	★84-731-493-010	COLLAR		2
	2-41	★84-731-442-110	PLATE, TRAY		1

EXPLODED VIEW – 3

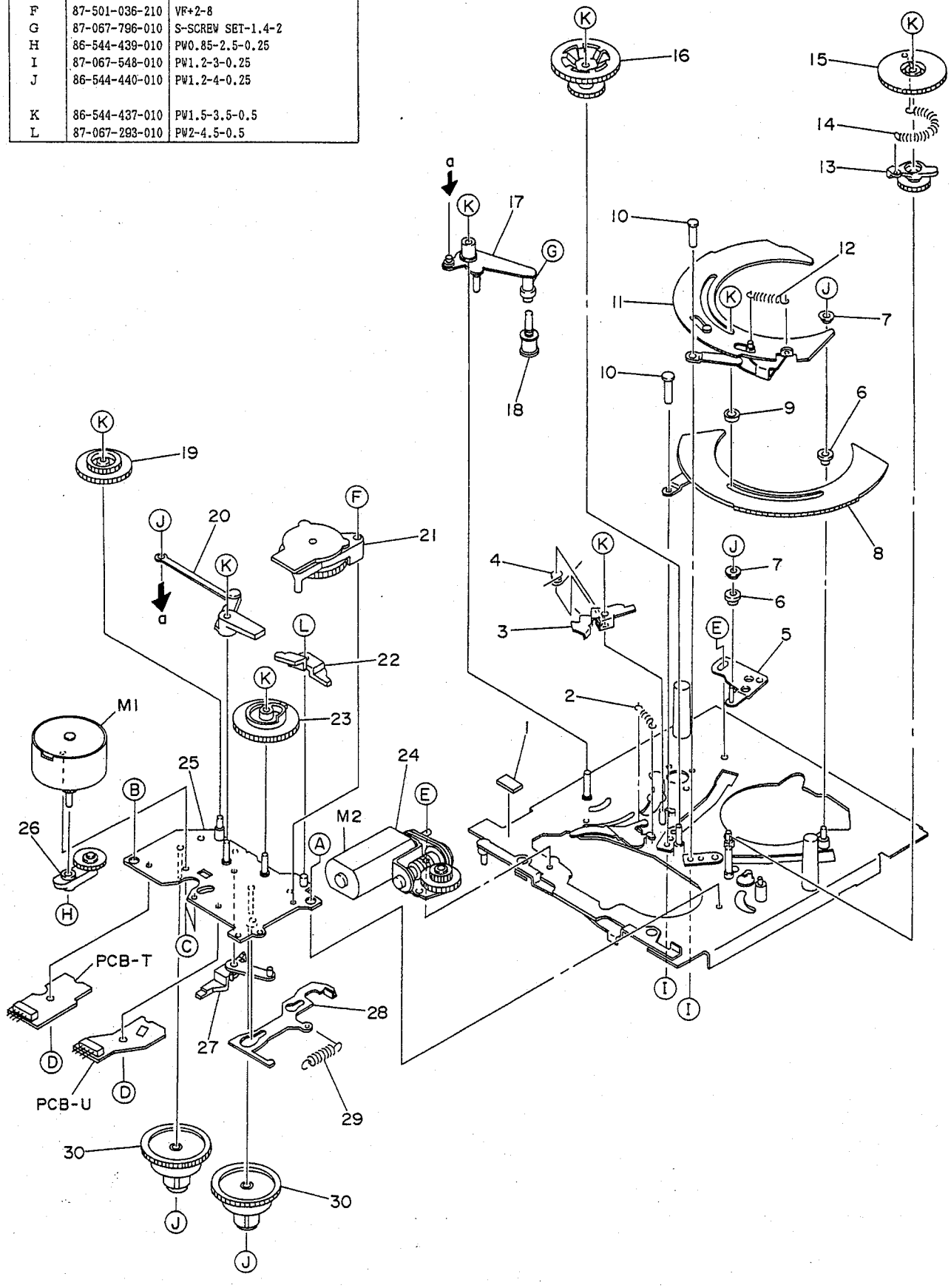
REF.NO.	PART NO.	DESCRIPTION
A	87-251-033-210	U+2-4
B	87-342-035-210	UT_2+2-6
C	87-267-527-310	V+1.7-3
D	87-267-532-310	V+1.7-5.5
E	87-067-435-010	V+2-1.8
F	87-261-031-410	V+2-2
G	87-261-032-210	V+2-3
H	86-544-444-010	V+2-3.5
I	87-261-033-210	V+2-4
J	87-261-035-210	V+2-6
K	87-269-070-110	B+2.6-3(B)
L	87-067-443-010	VF+2-3
M	86-544-440-010	PW1.2-4-0.25
N	87-067-800-010	PW1.5-3.5-0.25 SLT
O	86-544-437-010	PW1.5-3.5-0.5
P	87-081-978-010	PW2.1-3.5-0.25



PART NO. CHANGED TO	REF. NO.	PART NO.	DESCRIPTION	COMMON MODEL	Q. TY
	3-1	★86-544-201-510	CHASSIS MECHANISM ASSY	*	1
	3-2	★86-544-395-010	S SOFT BRAKE	*	1
	3-3	★86-544-417-010	E-SPRING, SOFT	*	2
	3-4	★86-544-261-110	TENREG LEVER ASSY	*	1
	3-5	★86-544-423-210	E-SPRING, SLIDE LEVER	*	1
	3-6	★86-544-319-010	TENREG BAND ASSY	*	1
	3-7	★86-544-339-110	LID OPENNER ASSY	*	1
	3-8	★86-544-359-010	HOLDER, ES R	*	1
	3-9	★86-544-411-010	C-SPRING, GUIDE	*	3
	3-10	★86-544-347-010	FLANGE, GUIDE	*	6
	3-11	★86-544-371-010	ROLLER A	*	3
	3-12	★86-544-373-010	NUT, GUIDE	*	3
	3-13	★86-544-324-110	SHUTTLE L ASSY	*	1
	3-14	★86-544-336-010	SHUTTLE STOP ASSY	*	2
	3-15	★86-544-328-110	SHUTTLE R ASSY	*	1
	3-16	★86-544-361-010	PLATE, KICK TENSION-RGLT	*	1
	3-17	86-544-617-010	DRUM	*	1
	3-18	★86-544-412-010	C-SPRING, SOLENOID	*	1
	3-19	★86-544-357-010	HOLDER, SOLENOID	*	1
	3-20	★86-544-288-010	COLLAR, ROLLER PINCH B	*	1
	3-21	86-544-289-010	PINCH ROLLER ASSY	*	1
	3-22	---	E-SPRING, PINCH ROLLER		1
	3-23	86-544-281-310	PINCH ARM ASSY	*	1
	3-24	★86-544-428-010	T-SPRING, PINCH ARM	*	1
	3-25	★86-544-360-010	HOLDER, ES L	*	1
	3-26	★86-544-363-110	RVS MAIN ARM ASSY	*	1
	3-27	★86-544-425-110	E-SPRING, RVS ARM	*	1
	3-28	★86-544-316-110	PLUNGER SLIDER ASSY	*	1
	3-29	★86-544-616-010	MOTOR, CAPSTAN		1
	3-30	★86-544-352-010	PLATE, SHUTTLE	*	2
	3-31	★86-544-427-010	T-SPRING, TENREG	*	1
	3-32	★86-544-366-010	BRAKE LEVER R ASSY	*	1
	3-33	★86-544-365-110	BRAKE LEVER L ASSY	*	1
	3-34	★86-544-418-010	E-SPRING, MAIN BRAKE	*	1
	3-35	★86-544-356-010	T SOFT BRAKE ASSY	*	1
	3-36	---	HIMELON 7-14		1
	3-37	★80-MQ1-205-010	HOLDER, FPC		1

EXPLODED VIEW – 4

REF.NO.	PART NO.	DESCRIPTION
A	86-544-443-010	U+2-3.5
B	87-251-034-210	U+2-5
C	87-267-525-310	V+1.7-2.5
D	87-067-435-010	V+2-1.8
E	87-261-032-210	V+2-3
F	87-501-036-210	VF+2-8
G	87-067-796-010	S-SCREW SET-1.4-2
H	86-544-439-010	PW0.85-2.5-0.25
I	87-067-548-010	PW1.2-3-0.25
J	86-544-440-010	PW1.2-4-0.25
K	86-544-437-010	PW1.5-3.5-0.5
L	87-067-293-010	PW2-4.5-0.5



PART NO. CHANGED TO	REF. NO.	PART NO.	DESCRIPTION	COMMON MODEL	Q. TY
	4-1	★86-544-451-010	CUSHION, M 2-5-10	*	1
	4-2	★86-544-426-210	E-SPRING, RVS STOPPER	*	1
	4-3	★86-544-354-010	LEVER, PUSHING	*	1
	4-4	★86-544-429-110	T-SPRING, PINCH ROLLER	*	1
	4-5	★86-544-313-010	PLATE RINK COLLAR ASSY	*	1
	4-6	★86-544-390-010	COLLAR, RINK FRONT	*	2
	4-7	★86-544-389-010	COLLAR, RINK REAR	*	2
	4-8	★86-544-245-010	RINK GEAR R ASSY	*	1
	4-9	★86-544-374-010	RING, SPACER	*	1
	4-10	★86-544-378-010	SHAFT, SHUTTLE JOINT	*	2
	4-11	★86-544-251-010	GEAR RINK L ASSY	*	1
	4-12	★86-544-420-110	E-SPRING, RING GEAR	*	1
	4-13	★86-544-385-010	GEAR, DRIVE C	*	1
	4-14	★86-544-421-010	E-SPRING, DRIVE GEAR	*	1
	4-15	★86-544-386-010	GEAR, DRIVE D	*	1
	4-16	★86-544-384-010	GEAR, DRIVE B	*	1
	4-17	★86-544-271-010	LEVER D ASSY	*	1
	4-18	---	SHAFT, CALKING B		1
	4-19	★86-544-383-010	GEAR, DRIVE A	*	1
	4-20	★86-544-301-010	LEVER ASSY	*	1
	4-21	86-544-603-010	SWITCH, MODE	*	1
	4-22	★86-544-392-010	LEVER, C	*	1
	4-23	★86-544-387-010	GEAR, CAM	*	1
	4-24	---	MECHANISM HOLDER ASSY		1
	4-25	★86-544-231-110	SUB CHASSIS ASSY	*	1
	4-26	★86-544-362-110	AUTO REVERSE LEVER ASSY	*	1
	4-27	★86-544-391-010	LEVER, B	*	1
	4-28	★86-544-351-010	PLATE, SAFETY BRAKE	*	1
	4-29	★86-544-419-010	E-SPRING, BRAKE FREE	*	1
	4-30	★86-544-452-010	REEL TUBE L ASSY	*	2

■ ACCESSORIES/PACKAGE LIST

PART NO. CHANGED TO	REF. NO.	PART NO.	DESCRIPTION	COMMON MODEL	Q,TY
	1	★80-AD1-904-010	INSTRUCTION BOOKLET,H	※	1
	2	★84-738-065-010	REMOTE CONTROLLER,RC – D1100EX	※	1
	3	★87-034-773-010	AUDIO PIN CORD		2